



Bioactive Molecules for Stem Cell Biology

Unlock extraordinary potential with Antibodies,
Proteins, Peptides and Small Molecules from Sigma®



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Stem Cell Biology – Infinite Expansion... Infinite Potential

Stem and progenitor cell research is a complex and very exciting field that promises fantastic curative discoveries in numerous areas from cancer to diabetes to neurodegenerative diseases. Sigma-Aldrich® offers a comprehensive and unprecedented number of products to support scientists in discovery efforts in this area. Our products are necessities in many areas including isolation, differentiation, genomics and epigenetics, functional profiling, and *in vivo/in vitro* tracking. Applications such as transfection, cell and protein characterization, RNAi, and imaging are instrumental in the development of stem cells for regenerative medicine and drug discovery.

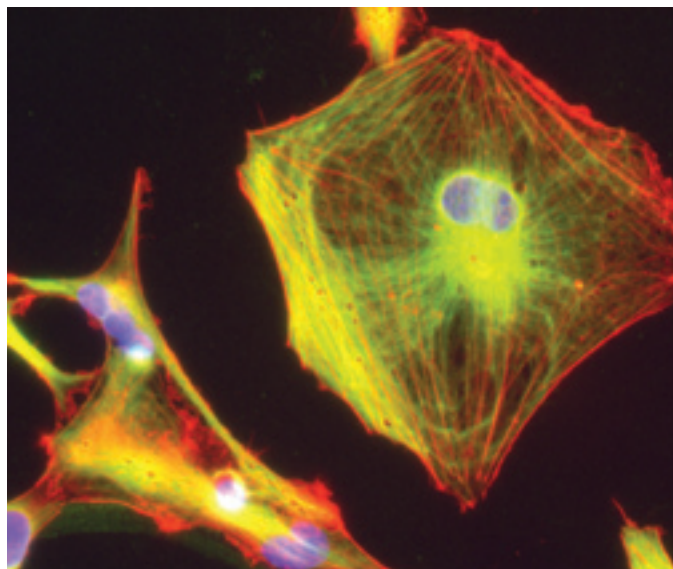
The products contained within Sigma's Stem Cell Biology platform are considered essential innovation means for stem cell science and support our customers in their efforts to develop therapies either in the areas of basic research, regenerative medicine, or drug efficacy and safety screening. Some of the most important discovery tools in this fastest growing area of research are stem cell markers. Sigma's promise is to aid in advancing your stem cell research by providing high-quality antibodies. Each of our antibodies meets meticulous application testings and validation using a diversity of methods, which can be found in our online data sheets and certificates of analysis. Also, browse our award-winning online tools such as the Antibody Explorer, Path Finder and Your Favorite Gene™. The extensive collection of antibodies in this brochure include markers for Embryonic Stem Cells (ESCs), Mesenchymal Stem Cell (MSCs), Hematopoietic Stem Cells (HSCs), Neural Stem Cells (NSCs), Cardiac Stem Cells, Islet Stem Cells, induced Pluripotent Stem (iPS) Cells, and others.

For complete product listings to meet all your stem cell research needs, visit sigma.com/stembio

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Cells derived from the culture of neural stem cells. The cells were expanded in Stemline Neural Stem Cell Expansion Medium (Cat. No. S3194) and then moved to conditions to allow them to differentiate. Differentiated cells were fixed and stained with an antibody for GFAP, an astrocyte marker in green, (Cat. No. G9269), actin is labeled with TRITC phalloidin (Cat. No. P1951), and the nuclei are labeled with DAPI (Cat. No. D8417).

Prestige Antibodies®

Antibodies that Work, Right Out of the Box!

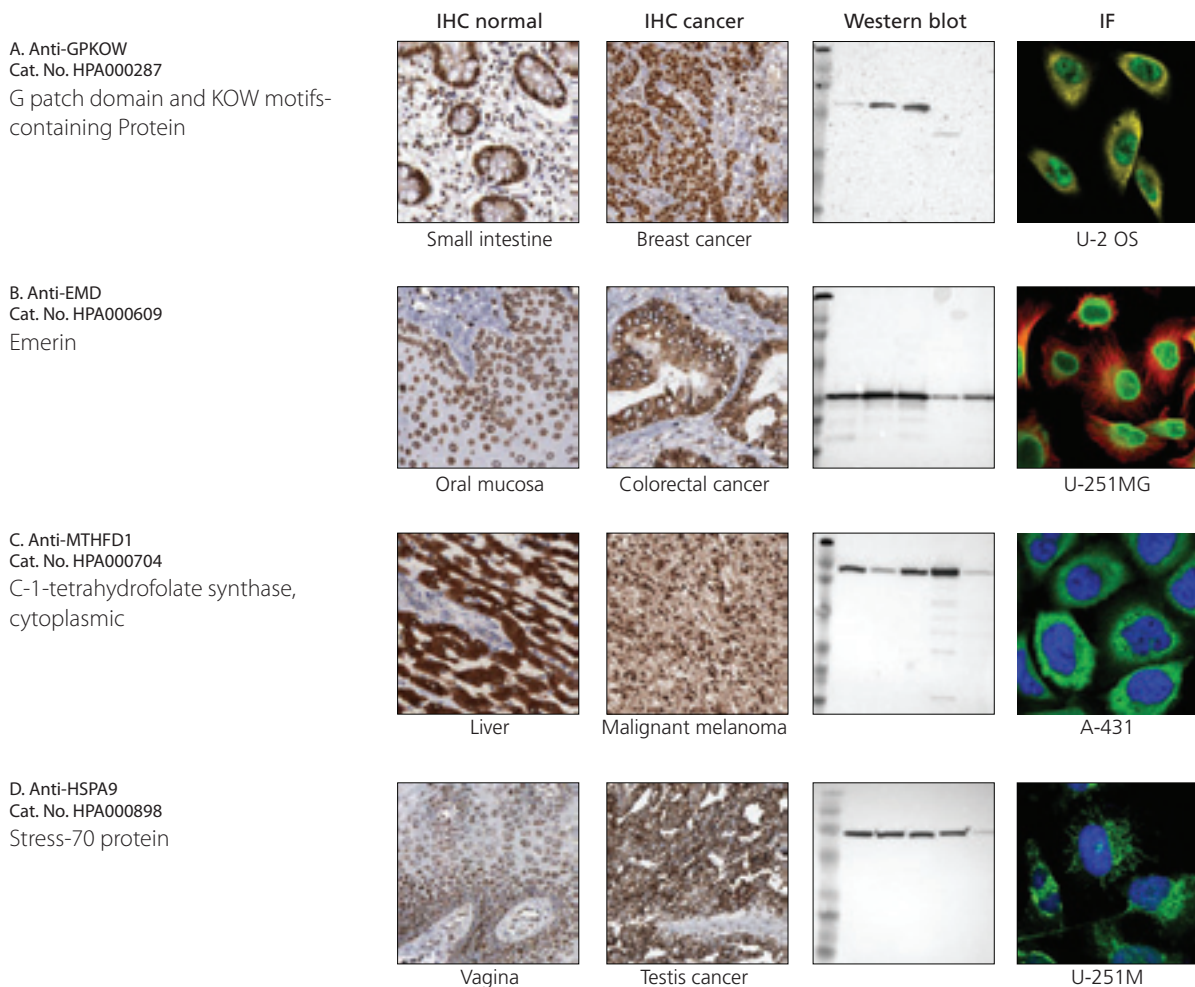
The most highly characterized antibodies in the industry:

- 3,800 antibodies covering 3,600 protein targets
- Validated by the Human Proteome Resource (HPR)
- Standardized in universal protocols
- Over 700 IF, IHC and WB images per antibody
- All data conveniently searchable online

Each Prestige Antibody designed and validated by the Human Proteome Resource (HPR) is accompanied by 700 immunohistochemistry (IHC) images. While most commercially available antibodies are validated solely by the supplier, Prestige Antibodies powered by Atlas Antibodies, are supported by the publically available data of the Human Protein Atlas (HPA), a part of HUPO's Human Antibody Initiative. All Prestige Antibodies are tested in multiple assurance steps to ensure that they are the most specific products on the market.

Examples of Prestige Antibodies with Corresponding Expression Profiling Results

All Prestige Antibodies in this product guide have catalog numbers beginning "HPA"



To order or for more information, visit sigma.com/prestige

Embryonic Stem/iPS Cell Markers

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
A1594-1MG	Anti-Activin A	goat	-	affinity isolated antibody	INHBA, human	human	ELISA (i) IHC (p) Neutral WB	0.1 mg
HPA010607-100UL	Anti-AFP	rabbit	-	affinity isolated antibody	AFP, human	human	IHC (p) PA	100 µL
B8436-100UG	Anti-Brachyury	rabbit	-	affinity isolated antibody	T, mouse T_predicted, rat T, human	human mouse rat	IHC WB	100 µg
B7684-1ML	Monoclonal Anti-Breast Cancer Resistance Protein	mouse	BXP-34	tissue culture supernatant	ABCG2, human	human	ICC IHC (f) IHC (p) WB	1 mL
B7059-1ML	Monoclonal Anti-Breast Cancer Resistance Protein	mouse	BXP-21	tissue culture supernatant	ABCG2, human	human	ICC IHC (f) IHC (p) WB	1 mL
E2278-100UG	E-Cadherin/Fc Chimera	human	-	-	CDH1, human	-	-	100 µg
E2153-50UG	E-Cadherin/Fc Chimera	mouse	-	-	Cdh1, mouse	-	-	50 µg
C2206-.2ML C2206-1ML	Anti-β-Catenin	rabbit	-	whole antiserum	CTNNB1, human Ctnnb1, mouse Ctnnb1, rat	several mammalian species	DB IF (i) WB	0.2 mL 1 mL
C7082-.2ML C7082-.5ML	Monoclonal Anti-β-Catenin	mouse	6F9	ascites fluid	CTNNB1, human	bovine canine chicken human	ARR IF (i) WB	0.2 mL 0.5 mL
C4231-.2ML	Monoclonal Anti-Phospho-β-Catenin (pSer ³³ /pSer ³⁷)	mouse	BC-22	purified immunoglobulin	CTNNB1, human Ctnnb1, mouse Ctnnb1, rat	chicken human mouse rat	ARR ELISA (i) WB	0.2 mL
C5615-200UL	Monoclonal Anti-Phospho-β-Catenin (pSer ⁴⁵)	mouse	BCS-45	purified immunoglobulin	CTNNB1, human Ctnnb1, mouse Ctnnb1, rat	human monkey mouse rat	ARR ELISA (i) ICC WB	200 µL
C7798-50TST C7798-100TST	Monoclonal Anti-CD15	mouse	DU-HL60-3	purified immunoglobulin	FUT4, human	human	FACS	50 test 100 test
C9493-100UG	Anti-CD133	rabbit	-	affinity isolated antibody	PROM1, human Prom1, mouse Prom1, rat	human mouse rat	IHC WB	100 µg
HPA016903-100UL	Anti-CD46	rabbit	-	affinity isolated antibody	CD46, human	human	IHC (p) PA	100 µL
C9993-100UG	Anti-CD9	rabbit	-	affinity isolated antibody	CD9, human Cd9, mouse Cd9, rat	human mouse rat	IHC WB	100 µg
HPA004812-100UL	Anti-CDH1	rabbit	-	affinity isolated antibody	CDH1, human	human	IHC (p) PA	100 µL
C6740-1VL	Anti-Phospho-c-Kit (SCFR) (pTyr ⁷⁰³)	rabbit	-	affinity isolated antibody	Kit, mouse Kit, rat KIT, human	human mouse rat	WB	1 vial
WH0001649M1-100UG	Monoclonal Anti-DDIT3	mouse	2G3	purified immunoglobulin	DDIT3, human	human	ELISA (i) WB	100 µg

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
WH0028514M1-100UG	Monoclonal Anti-DLL1	mouse	4F8	purified immunoglobulin	DLL1, human	human	ELISA (i) WB	100 µg
D2569-100UG	Anti-DPPA5	rabbit	-	affinity isolated antibody	DPPA5, human Dppa5a, mouse Dppa5_predicted, rat	human mouse rat	IHC WB	100 µg
WH0002168M2-50UG	Monoclonal Anti-FABP1	mouse	5F7	purified immunoglobulin	FABP1, human	human	ELISA (i) WB	50 µg
HPA002188-100UL	Anti-FABP4	rabbit	-	affinity isolated antibody	FABP4, human	human	IHC (p) PA WB	100 µL
A8452-.2ML	Monoclonal Anti-α-Fetoprotein (AFP)	mouse	C3	ascites fluid	AFP, human	canine human pig	DB ELISA (i) IHC (p)	0.2 mL
HPA011209-100UL	Anti-FGF4	rabbit	-	affinity isolated antibody	FGF4, human	human	IHC (p) PA	100 µL
F2153-.5MG	Monoclonal Anti-Fibroblast Growth Factor-4	mouse	19805.11	purified immunoglobulin	FGF4, human	human	ELISA (i) Neutral WB	0.5 mg
F9049-.1MG	Anti-Fibroblast Growth Factor-10	goat	-	affinity isolated antibody	FGF10, human	human	ELISA (i) WB	0.1 mg
G6919-200UL	Anti-G9a Methyltransferase	rabbit	-	affinity isolated antibody	EHMT2, human Ehmt2, mouse	human	ARR IP WB	200 µL
G6916-.2ML	Anti-GADD153	rabbit	-	affinity isolated antibody	DDIT3, human Ddit3, rat	human rat	ARR WB CL	0.2 mL
WH0009573M1-100UG	Monoclonal Anti-GDF3	mouse	2B10	purified immunoglobulin	GDF3, human	human	ELISA (i)	100 µg
WH0002697M1-100UG	Monoclonal Anti-GJA1	mouse	3E5	purified immunoglobulin	GJA1, human	human	ELISA (i) WB	100 µg
G4165-200UG	Anti-gp130	rabbit	-	IgG fraction of antiserum	Il6st, mouse IL6ST, human	human mouse	IP WB	200 µg
HPA007526-100UL	Anti-GREM1	rabbit	-	affinity isolated antibody	GREM1, human	human	IHC (p) PA	100 µL
P1498-200UL	Anti-Heat Shock Protein 27	rabbit	-	IgG fraction of antiserum	HSPB1, human Hspb1, mouse Hspb1, rat	human	ARR IF (i) WB	200 µL
WH0003218M1-50UG	Monoclonal Anti-HOXB8	mouse	4F8	purified immunoglobulin	HOXB8, human	human	ELISA (i) WB	50 µg
WH0003229M1-100UG	Monoclonal Anti-HOXC13	mouse	10D4	purified immunoglobulin	HOXC13, human	human	ELISA (i) WB	100 µg
WH0003234M1-100UG	Monoclonal Anti-HOXD8	mouse	10F8	purified immunoglobulin	HOXD8, human	human	ELISA (i) WB	100 µg
WH0003399M1-100UG	Monoclonal Anti-ID3	mouse	4G1	purified immunoglobulin	ID3, human	human	ELISA (i) WB	100 µg
I8638-.2ML	Monoclonal Anti-Integrin β1	mouse	W1B10	purified immunoglobulin	ITGB1, chicken	chicken	IF (i) IP WB	0.2 mL
HPA012696-100UL	Anti-ITGA6	rabbit	-	affinity isolated antibody	ITGA6, human	human	IHC (p) PA WB	100 µL

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
WH0003655M1-100UG	Monoclonal Anti-ITGA6	mouse	4C1	purified immunoglobulin	ITGA6, human	human	ELISA (i) WB	100 µg
WH0009270M4-100UG	Monoclonal Anti-ITGB1BP1	mouse	3G4	purified immunoglobulin	ITGB1BP1, human	human	ELISA (i) WB	100 µg
HPA005676-100UL	Anti-ITGBL1	rabbit	-	affinity isolated antibody	ITGBL1, human	human	IHC (p) PA	100 µL
WH0009314M1-100UG	Monoclonal Anti-KLF4	mouse	2F5	purified immunoglobulin	KLF4, human	human	ELISA (i) WB	100 µg
HPA010773-100UL	Anti-LRIG3	rabbit	-	affinity isolated antibody	LRIG3, human	human	IHC (p) PA	100 µL
WH0121227M2-100UG	Monoclonal Anti-LRIG3	mouse	4D5	purified immunoglobulin	LRIG3, human	human	ELISA (i) WB	100 µg
HPA017214-100UL	Anti-MELK	rabbit	-	affinity isolated antibody	MELK, human	human	IHC (p) PA	100 µL
WH0009833M1-100UG	Monoclonal Anti-MELK	mouse	4D8	purified immunoglobulin	MELK, human	human	ELISA (i)	100 µg
T2949-200UL	Anti-mTOR	rabbit	-	affinity isolated antibody	FRAP1, human Frap1, mouse Frap1, rat	human mouse rat	ARR IF (i) IP WB WB	200 µL
C3956-.2MG	Anti-c-Myc	rabbit	-	-	-	-	ARR ICC IP WB	0.2 mg
M4439-100UL	Monoclonal Anti-c-Myc	mouse	9E10	purified immunoglobulin	MYC, human	-	ARR ICC IHC (p) IP WB	100 µL
M5546-.2ML M5546-.5ML	Monoclonal Anti-c-Myc	mouse	9E10	ascites fluid	MYC, human	-	ELISA (i) ICC IHC (p) IP WB	0.2 mL 0.5 mL
N4413-100UG	Anti-Nanog	rabbit	-	affinity isolated antibody	NANOG, human Nanog, mouse Nanog, rat	human	WB	100 µg
N3038-25UL N3038-200UL	Monoclonal Anti-Nanog	mouse	NNG-811	purified immunoglobulin	NANOG, human	human	ELISA (i) ICC IP WB	25 µL 200 µL
N5413-100UG	Anti-Nestin	rabbit	-	affinity isolated antibody	NES, human Nes, mouse Nes, rat	human mouse rat	FACS IHC WB	100 µg
WH0004838M1-100UG	Monoclonal Anti-NODAL	mouse	7G4	purified immunoglobulin	NODAL, human	human mouse rat	ELISA (i) WB	100 µg
O8389-100UG	Anti-Oct 3/4	rabbit	-	affinity isolated antibody	POU5F1, human Pou5f1, mouse Pou5f1, rat	human mouse rat	IHC WB	100 µg
HPA000633-100UL	Anti-OTX2	rabbit	-	affinity isolated antibody	OTX2, human	human	IHC (p) PA	100 µL
HPA002110-100UL	Anti-PODXL	rabbit	-	affinity isolated antibody	PODXL, human	human	IHC (p) PA	100 µL

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
P0873-100UG	Anti-POU5F1 (Oct4)	rabbit	-	affinity isolated antibody	POU5F1, human Pou5f1, mouse Pou5f1, rat	human rodent	IHC WB	100 µg
P0082-25UL P0082-200UL	Monoclonal Anti-POU5F1 (Oct4)	mouse	PF-29	purified immunoglobulin	POU5F1, human	human	ELISA (i) ICC WB	25 µL 200 µL
WH0000639M1-100UG	Monoclonal Anti-PRDM1	mouse	2B10	purified immunoglobulin	PRDM1, human	human	ELISA (i) WB	100 µg
WH0023369M1-100UG	Monoclonal Anti-PUM2	mouse	5B6	purified immunoglobulin	PUM2, human	human	ELISA (i) WB	100 µg
HPA015291-100UL	Anti-SALL4	rabbit	-	affinity isolated antibody	SALL4, human	human	IHC (p) PA	100 µL
HPA015791-100UL	Anti-SALL4	rabbit	-	affinity isolated antibody	SALL4, human	human	IHC (p) PA	100 µL
WH0057167M3-100UG	Monoclonal Anti-SALL4	mouse	6E3	purified immunoglobulin	SALL4, human	human mouse rat	ELISA (i) IHC (p) WB	100 µg
HPA002652-100UL	Anti-SFRP2	rabbit	-	affinity isolated antibody	SFRP2, human	human	IHC (p) PA	100 µL
WH0006446M1-100UG	Monoclonal Anti-SGK	mouse	4D7-G3	purified immunoglobulin	SGK, human	human	ELISA (i) IF (i) IHC (p) WB	100 µg
S8321-25UL S8321-200UL	Monoclonal Anti-Sonic Hedgehog	mouse	SH154	purified immunoglobulin	SHH, human Shh, mouse Shh, rat	human mouse rat	ELISA (i) IHC WB	25 µL 200 µL
S4944-500UG	Monoclonal Anti-Sonic Hedgehog (N-terminal)	rat	171018	purified immunoglobulin	SHH, human Shh, mouse	human mouse	ELISA (c) IHC (f) Neutral WB	500 µg
S9072-100UG	Anti-SOX2	rabbit	-	affinity isolated antibody	SOX2, human Sox2, mouse RGD1565646_predicted, rat	human mouse rat	FACS IHC WB	100 µg
HPA006159-100UL	Anti-SOX30	rabbit	-	affinity isolated antibody	SOX30, human	human	IHC (p) PA	100 µL
HPA009065-100UL	Anti-SOX7	rabbit	-	affinity isolated antibody	SOX7, human	human	IHC (p) PA WB	100 µL
HPA002989-100UL	Anti-SPARC	rabbit	-	affinity isolated antibody	SPARC, human	human	IHC (p) PA WB	100 µL
S5933-200UG	Anti-STAT3	rabbit	-	IgG fraction of antiserum	STAT3, human Stat3, mouse Stat3, rat	human mouse rat	ICC IP WB CL	200 µg
S2690-1VL	Anti-phospho-STAT3 (pTyr ⁷⁰⁵)	rabbit	-	affinity isolated antibody	STAT3, human Stat3, mouse Stat3, rat	human mouse rat	WB	1 vial
HPA001671-100UL	Anti-STAT3	rabbit	-	affinity isolated antibody	STAT3, human	human	IHC (p) PA WB	100 µL
S2931-.1MG	Anti-Stem Cell Factor	goat	-	affinity isolated antibody	KITLG, human	human	ELISA (i) Neutral WB	0.1 mg
S6045-1MG	Anti-Stem Cell Factor	goat	-	IgG fraction of antiserum	Kitl, mouse	mouse	Neutral	1 mg

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
HPA010554-100UL	Anti-TPBG	rabbit	-	affinity isolated antibody	TPBG, human	human	IHC (p) PA	100 µL
WH0007162M3-100UG	Monoclonal Anti-TPBG	mouse	3D6	purified immunoglobulin	TPBG, human	human	ELISA (i)	100 µg
T3952-100UG	Anti-β-Tubulin III	rabbit	-	affinity isolated antibody	TUBB3, human Tubb3, mouse Tubb3, rat	human	FACS IHC WB	100 µg
U3254-.2ML U3254-.5ML	Monoclonal Anti-Uvomorulin/E-Cadherin	rat	DECMA-1	ascites fluid	CDH1, human Cdh1, mouse	bovine canine human mouse	ARR IF (i) IHC (f) IP WB	0.2 mL 0.5 mL
V4630-.2ML V4630-1ML	Anti-Vimentin	goat	-	whole antiserum	VIM, human	human wide range	IF (i) IHC (f) IHC (p) WB	0.2 mL 1 mL
Y0396-25UL Y0396-200UL	Anti-YB-1 (C-terminal)	rabbit	-	affinity isolated antibody	YBX1, human Ybx1, mouse Ybx1, rat	human mouse rat	IF (i) IP WB	25 µL 200 µL
Y0271-25UL Y0271-200UL	Anti-YB-1 (N-terminal)	rabbit	-	affinity isolated antibody	YBX1, human Ybx1, mouse Ybx1, rat	human mouse rat	WB WB	25 µL 200 µL
HPA003877-100UL	Anti-ZFX	rabbit	-	affinity isolated antibody	ZFX, human	human	IHC (p) PA WB	100 µL
WH0007547M5-100UG	Monoclonal Anti-ZIC3	mouse	2C1	purified immunoglobulin	ZIC3, human	human	ELISA (i) WB	100 µg

Mesenchymal Stem Cell Markers

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
A6354-200UL	Anti-Adiponectin	rabbit	-	affinity isolated antibody	ADIPOQ, human Adipoq, mouse	human mouse	WB	200 µL
HPA003157-100UL	Anti-BGN	rabbit	-	affinity isolated antibody	BGN, human	human	IHC (p) PA	100 µL
B9928-.1MG	Anti-Bone Morphogenetic Protein Receptor 2	goat	-	affinity isolated antibody	BMPR2, human	human	ELISA (i) WB	0.1 mg
B3930-.1MG	Anti-Bone Morphogenetic Protein Receptor IA	goat	-	affinity isolated antibody	BMPR1A, human	human	ELISA (i) WB	0.1 mg
C2687-.2ML C2687-.5ML	Monoclonal Anti-Calponin	mouse	hCP	ascites fluid	CNN2, human CNN1, human Cnn1, mouse Cnn2, mouse Cnn1, rat Kcnip4, rat	human mouse pig rabbit rat	ARR IHC (p) IP WB	0.2 mL 0.5 mL
C6047-.2ML C6047-.5ML	Monoclonal Anti-Calponin	mouse	CP-93	ascites fluid	CNN2, human	chicken human turkey	EM ICC IHC (p) WB	0.2 mL 0.5 mL
C0551-50TST	Monoclonal Anti-CD11b	mouse	ICRF44	purified immunoglobulin	ITGAM, human	human	FACS	50 test
F2648-50TST F2648-100TST	Monoclonal Anti-CD11b-FITC	mouse	ICRF44	purified immunoglobulin	ITGAM, human	human	FACS	50 test 100 test
C7673-50TST C7673-100TST	Monoclonal Anti-CD14	mouse	UCHM-1	purified immunoglobulin	CD14, human	human	FACS	50 test 100 test
F3668-50TST F3668-100TST	Monoclonal Anti-CD16-FITC	mouse	3G8	purified immunoglobulin	FCGR3B, human FCGR3A, human	human	FACS	50 test 100 test
P8590-.2ML	Monoclonal Anti-CD31 (PECAM-1)	mouse	WM-59	purified immunoglobulin	PECAM1, human	human	IF (i)	0.2 mL
F8402-50TST F8402-100TST	Monoclonal Anti-CD31 (PECAM-1)-FITC	mouse	WM-59	purified immunoglobulin	PECAM1, human	human	FACS	50 test 100 test
C7923-50TST C7923-100TST	Monoclonal Anti-CD44	mouse	A3D8	purified immunoglobulin	CD44, human	human	FACS	50 test 100 test
C7556-50TST	Monoclonal Anti-CD45	mouse	BRA-55	purified immunoglobulin	PTPRC, human	human	FACS	50 test
P7687-50TST P7687-100TST	Monoclonal Anti-CD45-PE	mouse	BRA-55	purified immunoglobulin	PTPRC, human	human	FACS	50 test 100 test
C2063-100TST	Monoclonal Anti-CD71 (Transferrin Receptor)	mouse	DF 1513	purified immunoglobulin	TFRC, human	human	FACS	100 test
HPA001887-100UL	Anti-CD14	rabbit	-	affinity isolated antibody	CD14, human	human	IHC (p) PA WB	100 µL
WH0000947M1-100UG	Monoclonal Anti-CD34	mouse	5F3	purified immunoglobulin	CD34, human	human	ELISA (i) WB	100 µg
HPA005785-100UL	Anti-CD44	rabbit	-	affinity isolated antibody	CD44, human	human	IHC (p) PA WB	100 µL

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
C7805-.2ML	Monoclonal Anti-Collagen, Type III	mouse	FH-7A	ascites fluid	COL3A1, human Col3a1, rat	human rat	DB ELISA (i) IHC (f) WB	0.2 mL
C1926-.2ML C1926-.5ML	Monoclonal Anti-Collagen, Type IV	mouse	COL-94	ascites fluid	COL4A5, human COL4A1, human COL4A3, human COL4A6, human COL4A4, human	human	ARR DB ELISA (i) IHC (f) IHC (p)	0.2 mL 0.5 mL
HPA003315-100UL	Anti-DCN	rabbit	-	affinity isolated antibody	DCN, human	human	IHC (p) PA	100 µL
D8281-.2ML D8281-1ML	Anti-Desmin	rabbit	-	whole antiserum	DES, human Des, mouse	bovine chicken human mouse	IF (i) IF (i) WB	0.2 mL 1 mL
D1033-.2ML D1033-.5ML	Monoclonal Anti-Desmin	mouse	DE-U-10	ascites fluid	Des, mouse Des, rat	bovine chicken feline goat hamster lizard mouse rabbit rat sheep viper	ARR IF (i) WB	0.2 mL 0.5 mL
D8168-.2ML D8168-.5ML	Monoclonal Anti-Dystrophin	mouse	MANDYS8	ascites fluid	DMD, human Dmd, mouse Dmd, rat	chicken human mouse pig rabbit rat	ARR ELISA (i) IF (i) WB	0.2 mL 0.5 mL
D8043-.2ML D8043-.5ML	Monoclonal Anti-Dystrophin	mouse	MANDRA1	ascites fluid	DMD, human Dmd, mouse Dmd, rat	fish human mouse rat	ARR IF (i)	0.2 mL 0.5 mL
HPA011862-100UL	Anti-ENG	rabbit	-	affinity isolated antibody	ENG, human	human	IHC (p) PA	100 µL
WH0002022M1-100UG	Monoclonal Anti-ENG	mouse	4C11	purified immunoglobulin	ENG, human	human	ELISA (i) WB	100 µg
HPA002188-100UL	Anti-FABP4	rabbit	-	affinity isolated antibody	FABP4, human	human	IHC (p) PA WB	100 µL
F3178-500UG	Monoclonal Anti-Fibroblast Growth Factor-8	mouse	47109.111	purified immunoglobulin	FGF8, human Fgf8, mouse	human mouse	ELISA (i) IHC (p) Neutral WB	500 µg
WH0003000M1-100UG	Monoclonal Anti-GU-CY2D	mouse	4E12	purified immunoglobulin	GUCY2D, human	human	ELISA (i) WB	100 µg
HPA002020-100UL	Anti-ICAM2	rabbit	-	affinity isolated antibody	ICAM2, human	human	IHC (p) PA	100 µL
HPA002274-100UL	Anti-ITGAM	rabbit	-	affinity isolated antibody	ITGAM, human	human	IHC (p) PA WB	100 µL
WH0003791M1-100UG	Monoclonal Anti-KDR	mouse	2A2	purified immunoglobulin	KDR, human	human	ELISA (i) WB	100 µg

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
L3410-.2ML	Anti-Leptin	rabbit	-	affinity isolated antibody	LEP, human Lep, mouse	human mouse	ARR ELISA (i) WB	0.2 mL
HPA005533-100UL	Anti-MEF2C	rabbit	-	affinity isolated antibody	MEF2C, human	human	IHC (p) PA	100 µL
HPA010008-100UL	Anti-MTM1	rabbit	-	affinity isolated antibody	MTM1, human	human	IHC (p) PA WB	100 µL
HPA010665-100UL	Anti-MTM1	rabbit	-	affinity isolated antibody	MTM1, human	human	IHC (p) PA WB	100 µL
N5408-.2ML	Monoclonal Anti-Nerve Growth Factor Receptor	mouse	ME20.4	ascites fluid	NGFR, human	feline human monkey pig raccoon	ARR ELISA (i) FACS IHC (f) IHC (p) IP Neutral RIA WB	0.2 mL
N3908-.2ML	Anti-Nerve Growth Factor Receptor (NGFR p75)	rabbit	-	affinity isolated antibody	Ngfr, rat	rat	ARR IF (i) IHC (f) WB	0.2 mL
WH0004824M2-100UG	Monoclonal Anti-NKX3-1	mouse	1C7	purified immunoglobulin	NKX3-1, human	human mouse rat	ELISA (i) IF (i) WB	100 µg
N6036-100UG	Anti-Nkx3.1	rabbit	-	affinity isolated antibody	NKX3-1, human Nkx3-1, mouse Nkx3-1, rat	human rodent	IHC WB	100 µg
HPA017357-100UL	Anti-NT5E	rabbit	-	affinity isolated antibody	NT5E, human	human	IHC (p) PA	100 µL
WH0004907M1-100UG	Monoclonal Anti-NT5E	mouse	4C4-2B5	purified immunoglobulin	NT5E, human	human	ELISA (i) WB	100 µg
O7635-.1MG	Anti-Osteopontin	goat	-	affinity isolated antibody	Spp1, mouse	mouse	ELISA (c) IHC Neutral WB	0.1 mg
O3389-100UG	Anti-Osteopontin	goat	-	affinity isolated antibody	SPP1, human	human	ELISA (i) IHC Neutral WB	100 µg
O7264-200UL	Anti-Osteopontin	rabbit	-	affinity isolated antibody	SPP1, human	human	IHC (p) WB	200 µL
P0744-100UL	Anti-Peroxisome Proliferator Activated Receptor γ 2	rabbit	-	affinity isolated antibody	PPARG, human Pparg, mouse	mouse	IF (i) WB	100 µL
WH0000860M1-100UG	Monoclonal Anti-RUNX2	mouse	1D8	purified immunoglobulin	RUNX2, human	human	ELISA (i) IHC (p) WB	100 µg
HPA001758-100UL	Anti-SOX9	rabbit	-	affinity isolated antibody	SOX9, human	human	IHC (p) PA	100 µL
S7320-200UL	Anti-Spred-2	rabbit	-	affinity isolated antibody	SPRED2, human Spred2, mouse Spred2, rat	human mouse rat	ARR IF (i) WB WB	200 µL

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
S1819-200UL	Anti-Sprouty 2 (C-Terminal)	rabbit	-	affinity isolated antibody	SPRY2, human	canine human	IF (i) IP WB	200 µL
S1444-200UL	Anti-Sprouty 2 (N-Terminal)	rabbit	-	affinity isolated antibody	SPRY2, human	canine human	IF (i) IP WB	200 µL
T4077-100UG	Anti-TAZ	rabbit	-	affinity isolated antibody	TAZ, human Taz, mouse Taz, rat	human mouse rat	IHC WB	100 µg
T2551-.2ML T2551-.5ML	Monoclonal Anti-Tenascin	mouse	BC-24	ascites fluid	TNN, human	human	ARR ELISA (i) ICC IHC (f) IHC (p) RIA WB	0.2 mL 0.5 mL
T3413-.2ML	Monoclonal Anti-Tenascin	rat	MTn-12	ascites fluid	Tnn, mouse	mouse	ELISA (i) IF (i) IHC (f) IP WB	0.2 mL
HPA003733-100UL	Anti-THY1	rabbit	-	affinity isolated antibody	THY1, human	human	IHC (p) PA	100 µL
WH0007070M1-100UG	Monoclonal Anti-THY1	mouse	3F9	purified immunoglobulin	THY1, human	human	ELISA (i) WB	100 µg
HPA004823-100UL	Anti-TNC	rabbit	-	affinity isolated antibody	TNC, human	human	IHC (p) PA WB	100 µL

Neural Stem Cell Markers

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
A8229-100UG	Monoclonal Anti-A2B5	mouse	105	purified immunoglobulin	-	chicken human mouse rat	FACS IHC	100 µg
A1594-.1MG	Anti-Activin A	goat	-	affinity isolated antibody	INHBA, human	human	ELISA (i) IHC (p) Neutral WB	0.1 mg
A2205-.1MG	Anti-Activin Receptor IA	goat	-	affinity isolated antibody	ACVR1, human	human	ELISA (i) WB	0.1 mg
A2455-.1MG	Anti-Activin Receptor IB	goat	-	affinity isolated antibody	ACVR1B, human Acvr1b, mouse	human	ELISA (i) IHC (p) WB	0.1 mg
A8081-.1MG	Anti-Activin Receptor IIA	goat	-	affinity isolated antibody	ACVR2A, human	human	ELISA (i) IHC (p) WB	0.1 mg
A0457-.1MG	Anti-Activin Receptor IIB	goat	-	affinity isolated antibody	ACVR2B, human	human	ELISA (i) WB	0.1 mg
A8230-25UL A8230-200UL	Anti-Axin1	rabbit	-	affinity isolated antibody	Axin1, rat Axin1, mouse	mouse rat	WB	25 µL 200 µL
A0481-25UL A0481-200UL	Anti-Axin1 (C-terminal)	rabbit	-	affinity isolated antibody	Axin1, rat Axin1, mouse AXIN1, human	bovine (predicted) human (predicted) mouse rat	WB	25 µL 200 µL
C2542-.2ML	Monoclonal Anti-N-Cadherin	mouse	GC-4	ascites fluid	CDH2, human Cdh2, mouse Cdh2, rat	chicken human mouse rabbit rat	ARR EM IF (i) WB	0.2 mL
C3865-200UL	Monoclonal Anti-N-Cadherin	mouse	GC-4	purified immunoglobulin	CDH2, human Cdh2, mouse Cdh2, rat	chicken human monkey mouse rabbit rat	EM FACS ICC IHC WB	200 µL
F7178-200UL	Monoclonal Anti-Pan Cadherin-FITC	mouse	CH-19	purified immunoglobulin	CDH3, human CDH1, human CDH2, human Cdh1, mouse Cdh3, mouse Cdh2, mouse Cdh1, rat Cdh3, rat Cdh2, rat	<i>Psammomys</i> (sand rat) bovine canine chicken feline frog goat guinea pig hamster human mouse pig rabbit rat sheep snake	IF (d)	200 µL

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
C2724-.2ML	Anti-Calbindin D-28K (EG-20)	rabbit	-	affinity isolated antibody	Calb1, rat	rat	IHC WB	0.2 mL
C7354-.2ML	Anti-Calbindin-D-28K (KD-15)	rabbit	-	affinity isolated antibody	CALB1, human Calb1, mouse Calb1, rat	chicken human rat	ARR IHC (p) WB	0.2 mL
C9848-.2ML C9848-.5ML	Monoclonal Anti-Calbindin-D-28K	mouse	CB-955	ascites fluid	CALB1, human Calb1, mouse Calb1, rat	bovine canine feline goat guinea pig human mouse pig rabbit rat sheep	ELISA (i) IHC (p) WB	0.2 mL 0.5 mL
C8737-50UL C8737-200UL	Anti-Caspr2	rabbit	-	affinity isolated antibody	CNTNAP2, human Cntnap2, mouse Cntnap2_predicted, rat	mouse rat	WB	50 μ L 200 μ L
C7207-.2ML C7207-.5ML	Monoclonal Anti- β -Catenin	mouse	15B8	ascites fluid	CTNNB1, human	bovine canine chicken human	ARR IF (i) IHC (f) WB	0.2 mL 0.5 mL
C5615-200UL	Monoclonal Anti-Phospho- β -Catenin (pSer ⁴⁵)	mouse	BCS-45	purified immunoglobulin	CTNNB1, human Ctnnb1, mouse Ctnnb1, rat	human monkey mouse rat	ARR ELISA (i) ICC WB	200 μ L
C8616-200UL	Monoclonal Anti-Phospho- β -Catenin (pThr ⁴¹)	mouse	BCT-41	purified immunoglobulin	CTNNB1, human	human	ARR ELISA (i) ICC IP WB	200 μ L
C7738-200UL	Monoclonal Anti- β -Catenin-Cy3™	mouse	15B8	purified immunoglobulin	CTNNB1, human	bovine canine chicken human	IF (d)	200 μ L
C7923-50TST C7923-100TST	Monoclonal Anti-CD44	mouse	A3D8	purified immunoglobulin	CD44, human	human	FACS	50 test 100 test
HPA005785-100UL	Anti-CD44	rabbit	-	affinity isolated antibody	CD44, human	human	IHC (p) PA WB	100 μ L
HPA000226-100UL	Anti-CHRDL1	rabbit	-	affinity isolated antibody	CHRDL1, human	human	IHC (p) PA	100 μ L
HPA000250-100UL	Anti-CHRDL1	rabbit	-	affinity isolated antibody	CHRDL1, human	human	IHC (p) PA	100 μ L
C9743-100UG	Anti-CNPase	rabbit	-	affinity isolated antibody	CNP, human Cnp, mouse Cnp1, rat	human mouse rat	FACS IHC WB	100 μ g
C5922-.2ML C5922-.5ML	Monoclonal Anti-CNPase	mouse	11-5B	ascites fluid	CNP, human Cnp, mouse Cnp1, rat	bovine canine human mouse pig rabbit rat sheep	ARR ELISA (i) IHC WB	0.2 mL 0.5 mL

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
F3804-50UL	Anti-Frizzled-1	rabbit	-	affinity isolated antibody	FZD1, human Fzd1, mouse Fzd1, rat	human	IHC (p)	50 µL
F3304-50UL	Anti-Frizzled-2	rabbit	-	affinity isolated antibody	FZD2, human Fzd2, mouse Fzd2, rat	human	IHC (p)	50 µL
F3179-50UL	Anti-Frizzled-3	rabbit	-	affinity isolated antibody	FZD3, human Fzd3, mouse Fzd3, rat	human	IHC (p)	50 µL
F3429-50UL	Anti-Frizzled-4	rabbit	-	affinity isolated antibody	FZD4, human Fzd4, mouse Fzd4, rat	human	IHC (p)	50 µL
F3679-50UL	Anti-Frizzled-7	rabbit	-	affinity isolated antibody	FZD7, human Fzd7, mouse	human	IHC (p)	50 µL
F3554-50UL	Anti-Frizzled-10	rabbit	-	affinity isolated antibody	FZD10, human Fzd10, mouse	human	IHC (p)	50 µL
A2052-.2ML A2052-.5ML	Anti-GABA	rabbit	-	affinity isolated antibody	-	-	DB	0.2 mL 0.5 mL
A0310-.2ML A0310-.5ML	Monoclonal Anti-GABA	mouse	GB-69	ascites fluid	-	-	DB ELISA (i)	0.2 mL 0.5 mL
G8035-1MG	Anti-Glial Cell-derived Neurotrophic Factor (GDNF)	goat	-	IgG fraction of antiserum	GDNF, human	human	Neutral	1 mg
G9269-.2ML G9269-1ML	Anti-Glial Fibrillary Acidic Protein	rabbit	-	IgG fraction of antiserum	GFAP, human Gfap, rat	human rat	ARR IHC (p) WB	0.2 mL 1 mL
G4546-100UG	Anti-Glial Fibrillary Acidic Protein	rabbit	-	affinity isolated antibody	GFAP, human Gfap, mouse Gfap, rat	human mouse rat	FACS IHC WB	100 µg
G3893-.2ML G3893-.5ML	Monoclonal Anti-Glial Fibrillary Acidic Protein (GFAP)	mouse	G-A-5	ascites fluid	GFAP, human Gfap, rat	human pig rat	ARR IHC	0.2 mL 0.5 mL
C9205-.2ML C9205-.5ML	Monoclonal Anti-Glial Fibrillary Acidic Protein (GFAP)-Cy3	mouse	G-A-5	purified immunoglobulin	GFAP, human Gfap, rat	human pig rat	IHC	0.2 mL 0.5 mL
G5419-100UG	Monoclonal Anti-Glutamic Acid Decarboxylase 67 (GAD67)	mouse	K-87	purified immunoglobulin	GAD1, human Gad1, mouse Gad1, rat	human mouse rat	IHC (p) WB	100 µg
G5791-50UG	Anti-phospho-Glycogen Synthase Kinase 3α/β (pTyr ^{279/216})	rabbit	-	affinity isolated antibody	GSK3A, human Gsk3a, mouse Gsk3a, rat	human mouse rat	DB ELISA (i) WB	50 µg
G4414-.5ML	Monoclonal Anti-Glycogen Synthase Kinase-3 (GSK-3)	mouse	GSK-3B	ascites fluid	GSK3B, human GSK3A, human Gsk3a, mouse Gsk3b, mouse Gsk3b, rat Gsk3a, rat	human mouse rabbit rat	ARR ELISA (i) ICC WB	0.5 mL
G7914-.2ML	Anti-Glycogen Synthase Kinase-3β (GSK-3β)	rabbit	-	affinity isolated antibody	GSK3B, human Gsk3b, rat	human rat	ARR WB	0.2 mL
C0678-.2ML C0678-.5ML	Monoclonal Anti-HNK-1/N-CAM (CD57)	mouse	VC1.1	ascites fluid	B3GAT1, human B3gat1, mouse B3gat1, rat	feline human mouse rat	WB	0.2 mL 0.5 mL

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
C6680-50TST C6680-100TST	Monoclonal Anti-HNK-1/N-CAM (CD57)	mouse	VC1.1	purified immunoglobulin	B3gat1, rat B3GAT1, human B3gat1, mouse	feline human mouse rat	FACS IHC (p)	50 test 100 test
I7533-1VL	Anti-Phospho-Integrin β 1 (pSer ⁷⁸⁵)	rabbit	-	affinity isolated antibody	ITGB1, human Itgb1, rat Itgb1, mouse	chicken human mouse rat	WB	1 vial
I7783-1VL	Anti-Phospho-Integrin β 1 Receptor (pThr ⁷⁸⁸ /pThr ⁷⁸⁹)	rabbit	-	affinity isolated antibody	ITGB1, human Itgb1, mouse Itgb1, rat	chicken (predicted) human mouse (pre-dicted) rat (pre-dicted)	WB	1 vial
I0282-200UL	Monoclonal Anti- α -Internexin	mouse	2E3	purified immunoglobulin	INA, human Inexa, rat	bovine feline human pig rat	ARR ELISA (i) ICC IHC WB	200 μ L
J4127-.1MG	Anti-Jagged 1	goat	-	affinity isolated antibody	JAG1, human Jag1, rat	human rat	ELISA (i) FACS Neutral WB	0.1 mg
L7391-.2ML	Monoclonal Anti-LIS1	mouse	LIS1-338	purified immunoglobulin	PFAFH1B1, human Pafah1b1, mouse Pafah1b1, rat	bovine chicken human mouse rat zebrafish	ARR IP WB	0.2 mL
M4278-.2ML	Monoclonal Anti-MAP1	mouse	HM-1	ascites fluid	Mtap1a, mouse Mtap1a, rat	mouse rat	ARR IHC (f) WB	0.2 mL
M4528-.2ML	Monoclonal Anti-MAP1b	mouse	AA6	ascites fluid	MAP1B, human Mtap1b, mouse Map1b, rat	bovine chicken feline hamster human mouse rat	ARR WB	0.2 mL
M2320-200UL	Monoclonal Anti-MAP2 (2a+2b)	mouse	AP-20	purified immunoglobulin	MAP2, human Mtap2, mouse Mtap2, rat	<i>Xenopus</i> aquatic salamander bovine human mouse quail rat	ARR ICC WB	200 μ L
M3696-100UG	Anti-MAP2	rabbit	-	affinity isolated antibody	MAP2, human Mtap2, mouse Mtap2, rat	human mouse rat	FACS IHC WB	100 μ g
M9942-200UL	Monoclonal Anti-MAP2	mouse	HM-2	purified immunoglobulin	MAP2, human Mtap2, mouse Mtap2, rat	bovine chicken human mouse quail rat	ARR ICC IHC WB	200 μ L

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
M4403-.2ML	Monoclonal Anti-MAP2	mouse	HM-2	ascites fluid	MAP2, human Mtap2, mouse Mtap2, rat	bovine chicken human mouse quail rat	IHC (p) WB	0.2 mL
M7273-.2ML M7273-1ML	Anti-Microtubule-Associated Proteins (MAPs)	rabbit	-	whole antiserum	MAPT, human Mapt, rat Mapt, mouse MAP2, human Mtap2, mouse Mtap2, rat	mammals	WB	0.2 mL 1 mL
M0820-200UL	Anti-MOG (C-terminal)	rabbit	-	affinity isolated antibody	MOG, human Mog, rat	rat	WB	200 µL
M0695-200UL	Anti-MOG (N-terminal)	rabbit	-	affinity isolated antibody	MOG, human	human	WB	200 µL
M9434-2ML	Monoclonal Anti-Myelin Basic Protein (MBP) (36-50)	rat	14	tissue culture supernatant	MBP, human	bovine guinea pig human rabbit (weak) sheep	ELISA (i) IHC WB	2 mL
M3821-100UG	Anti-Myelin Basic Protein (MBP)	rabbit	-	affinity isolated antibody	MBP, human Mbp, mouse Mbp, rat	human mouse rat	FACS IHC WB	100 µg
N5413-100UG	Anti-Nestin	rabbit	-	affinity isolated antibody	NES, human Nes, mouse Nes, rat	human mouse rat	FACS IHC WB	100 µg
N3787-500UG	Monoclonal Anti-Netrin-1	mouse	158936	purified immunoglobulin	Ntn1, mouse	mouse	ELISA (d) WB	500 µg
N3912-500UG	Monoclonal Anti-Netrin-4	mouse	191633	purified immunoglobulin	NTN4, human	human	ELISA (i) WB	500 µg
N4037-100UG	Anti-Netrin-G1a	goat	-	affinity isolated antibody	Ntng1, mouse	mouse	ELISA (i) WB	100 µg
C9672-.2ML C9672-.5ML	Monoclonal Anti-Neural Cell Adhesion Molecule	mouse	NCAM-0B11	ascites fluid	NCAM1, human NCAM2, human Ncam2, rat Ncam1, rat	human rat	ICC WB	0.2 mL 0.5 mL
N0913-25UL N0913-200UL	Monoclonal Anti-Neurocan	mouse	650.24	purified immunoglobulin	Cspg3, rat	rat	ELISA (i) ICC IHC (f) WB	25 µL 200 µL
N3663-25UL N3663-200UL	Anti-NeuroD1	rabbit	-	affinity isolated antibody	NEUROD1, human Neurod1, mouse Neurod1, rat	human mouse rat	WB	25 µL 200 µL
N8411-100UG	Anti-NeuroD2	rabbit	-	affinity isolated antibody	NEUROD2, human Neurod2, mouse Neurod2, rat	human rodent	IHC WB	100 µg
N3537-200UL	Monoclonal Anti-Neurofibromin	mouse	NFn27a	ascites fluid	NF2, human Nf2, mouse Nf2, rat	human mouse rat	WB	200 µL
N3662-200UL	Monoclonal Anti-Neurofibromin	mouse	NFn27b	ascites fluid	NF2, human Nf2, mouse Nf2, rat	human mouse rat	ARR IHC WB	200 µL
N5139-.2ML N5139-.5ML	Monoclonal Anti-Neurofilament 68	mouse	NR4	ascites fluid	NEFL, human	chicken human pig rat	ARR IHC (f) IHC (p) WB	0.2 mL 0.5 mL

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
N2787-200UL	Monoclonal Anti-Neurofilament 160	mouse	RMO44	purified immunoglobulin	-	human mouse rat zebrafish	ARR IHC WB	200 µL
N5264-2ML N5264-5ML	Monoclonal Anti-Neurofilament 160	mouse	NN18	ascites fluid	Nefm, mouse Nef3, rat NEFM, chicken NEFM, human	human pig	IHC (f) IHC (p) WB	0.2 mL 0.5 mL
N2912-200UL	Monoclonal Anti-Neurofilament 160/200	mouse	RMdO20	purified immunoglobulin	-	human mouse rat	ARR ICC IHC WB	200 µL
N4142-2ML N4142-5ML	Anti-Neurofilament 200	rabbit	-	IgG fraction of antiserum	NEFH, human Nefh, mouse Nefh, rat	bovine wide range	ARR IHC (p) WB	0.2 mL 0.5 mL
N5389-2ML N5389-5ML	Monoclonal Anti-Neurofilament 200	mouse	NE14	ascites fluid	NEFH, human	human pig	ARR IHC (f) IHC (p) WB	0.2 mL 0.5 mL
N0142-2ML N0142-5ML	Monoclonal Anti-Neurofilament 200 (Phos. and Non-Phos.)	mouse	N52	ascites fluid	NEFH, human Nefh, mouse Nefh, rat	wide range	ARR IHC (f) IHC (p) WB	0.2 mL 0.5 mL
N6286-100UG	Anti-Neurogenin 2	rabbit	-	affinity isolated antibody	NEUROG2, human Neurog2, mouse Neurog2_predicted, rat	human rodent	IHC WB	100 µg
N0649-6ML	Anti-Neuronal Specific Enolase	rabbit	-	whole antiserum	ENO2, human	human	IHC	6 mL
N3287-500UG	Monoclonal Anti-Neuropilin-1	mouse	130603	purified immunoglobulin	Nrp1, rat	rat	ELISA (i)	500 µg
N3412-500UG	Monoclonal Anti-Neuropilin-2	mouse	96009	purified immunoglobulin	Nrp2, rat	rat	ELISA (i) WB	500 µg
N8912-200UL	Monoclonal Anti-NG2	mouse	132.38	purified immunoglobulin	Cspg4, rat	rat	ARR ELISA (i) ICC IP WB	200 µL
N4538-100UG	Anti-Noggin	rabbit	-	affinity isolated antibody	NOG, human Nog, mouse Nog, rat	human	WB	100 µg
N4788-100UG	Anti-NOTCH1	rabbit	-	affinity isolated antibody	NOTCH1, human Notch1, mouse Notch1, rat	human mouse rat	IHC WB	100 µg
N6786-200UL	Monoclonal Anti-Notch1	mouse	mN1A	purified immunoglobulin	NOTCH1, human Notch1, mouse	human mouse	ARR ELISA (i) ICC WB	200 µL
N4913-100UG	Anti-NOTCH2	rabbit	-	affinity isolated antibody	NOTCH2, human Notch2, mouse Notch2, rat	human	WB	100 µg
N5038-100UG	Anti-NOTCH3	rabbit	-	affinity isolated antibody	NOTCH3, human Notch3, mouse Notch3, rat	human mouse rat	IHC WB	100 µg

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
O7014-50UG	Monoclonal Anti-Oligodendrocyte Marker O1	mouse	O1	purified immunoglobulin	-	chicken human mouse rat	FACS IHC	50 µg
O7139-50UG	Monoclonal Anti-Oligodendrocyte Marker O4	mouse	O4	purified immunoglobulin	-	chicken human mouse rat	FACS IHC	50 µg
P5117-200UL	Monoclonal Anti-Peripherin	mouse	8G2	purified immunoglobulin	PRPH, human Prph, mouse Prph1, rat	bovine feline human mouse pig rabbit rat	ARR ELISA (i) IHC WB	200 µL
P8874-25UL P8874-200UL	Monoclonal Anti-Phosphacan	mouse	122.2	purified immunoglobulin	Ptprz1, rat	rat	ICC IHC WB	25 µL 200 µL
R5278-100UG	Anti-RAGE (Receptor for Advanced Glycation Endproducts)	rabbit	-	affinity isolated antibody	AGER, human Ager, mouse Ager, rat	mouse rat	IHC WB	100 µg
R4904-200UL	Anti-Reelin	rabbit	-	affinity isolated antibody	Reln, mouse Reln, rat	mouse rat	ARR WB	200 µL
S2644-.2ML S2644-1ML	Anti-S-100	rabbit	-	IgG fraction of antiserum	S100a10, rat	bovine guinea pig human rat	ARR IHC (p)	0.2 mL 1 mL
S2657-.2ML S2657-.5ML	Monoclonal Anti-S-100 (β-Subunit)	mouse	SH-B4	ascites fluid	S100B, human S100b, rat	bovine canine feline goat human pig rabbit rat sheep	DB ELISA (i) IHC (p)	0.2 mL 0.5 mL
S2532-.2ML S2532-.5ML	Monoclonal Anti-S-100 (β-Subunit)	mouse	SH-B1	ascites fluid	S100B, human S100b, rat	bovine canine feline goat human pig rabbit rat sheep	ARR DB ELISA (i) IHC (p)	0.2 mL 0.5 mL
S6945-100UG	Anti-Semaphorin 6A	goat	-	affinity isolated antibody	SEMA6A, human	human	ELISA (i) WB	100 µg
S7070-100UG	Anti-Semaphorin 6A	goat	-	affinity isolated antibody	Sema6a, mouse	mouse	ELISA (d) IHC WB	100 µg
S6820-100UG	Anti-Semaphorin 3A	goat	-	affinity isolated antibody	SEMA3A, human	human	ELISA (i) WB	100 µg
S0696-200UL	Anti-Striatin	rabbit	-	affinity isolated antibody	STRN, human Strn, mouse Strn, rat	mouse rat	ARR WB WB	200 µL

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
S8191-200UL	Anti-Survivin	rabbit	-	IgG fraction of antiserum	BIRC5, human Birc5, mouse Birc5, rat	human mouse rat	ARR WB	200 µL
S193-10UG	Anti-Synapsin I	rabbit	-	affinity isolated antibody	SYN1, human Syn1, mouse Syn1, rat	bovine human mouse rat	ELISA (i) IHC (f) IP WB	10 µg
S2822-25UL S2822-200UL	Anti-Synapsin II	rabbit	-	affinity isolated antibody	Syn2, rat SYN2, human Syn2, mouse	human mouse rat	WB	25 µL 200 µL
S2947-25UL S2947-200UL	Anti-Synapsin II (C-terminal)	rabbit	-	affinity isolated antibody	Syn2, rat SYN2, human Syn2, mouse	human mouse rat	WB	25 µL 200 µL
S5768-.2ML S5768-.5ML	Monoclonal Anti-Synaptophysin	mouse	SVP-38	ascites fluid	SYP, human Syp, rat	guinea pig human pig rat	ELISA (i) IHC (f) IHC (p) WB	0.2 mL 0.5 mL
HPA002858-100UL	Anti-SYP	rabbit	-	affinity isolated antibody	SYP, human	human	IHC (p) PA	100 µL
T9450-200UL	Monoclonal Anti-Tau	mouse	Tau46	purified immunoglobulin	MAPT, human Mapt, mouse Mapt, rat	bovine human mouse rat	ARR ELISA (i) IHC IP WB	200 µL
T6402-.2ML T6402-1ML	Anti-τ (Tau)	rabbit	-	whole antiserum	MAPT, human	chicken wide range	WB	0.2 mL 1 mL
T5530-.2ML T5530-.5ML	Monoclonal Anti-τ (Tau)	mouse	TAU-2	ascites fluid	MAPT, human	bovine chicken human monkey	ARR IHC (p) WB	0.2 mL 0.5 mL
T2200-200UL	Anti-β-Tubulin III	rabbit	-	affinity isolated antibody	TUBB3, human Tubb3, mouse Tubb3, rat	human mouse rat	IF (i) IP WB	200 µL
T3952-100UG	Anti-β-Tubulin III	rabbit	-	affinity isolated antibody	TUBB3, human Tubb3, mouse Tubb3, rat	human	FACS IHC WB	100 µg
T8660-.2ML T8660-.5ML	Monoclonal Anti-β-Tubulin III	mouse	SDL.3D10	ascites fluid	TUBB3, human Tubb3, rat	bovine human rat	ELISA (i) WB	0.2 mL 0.5 mL
T5076-200UL	Monoclonal Anti-β-Tubulin Isotype III	mouse	SDL.3D10	purified immunoglobulin	Tubb3, rat TUBB3, human Tubb3, mouse	boar bovine human mouse rat	ARR DB ELISA (i) ICC IHC WB	200 µL
T8700-1VL	Anti-Tyrosine Hydroxylase	rabbit	-	affinity isolated antibody	TH, human Th, mouse Th, rat	mammals	IF (i) IHC (f) WB	1 vial
T1299-.2ML T1299-.5ML	Monoclonal Anti-Tyrosine Hydroxylase	mouse	TH-2	ascites fluid	TH, human Th, rat	bovine guinea pig human monkey rabbit rat sheep	IHC IP WB	0.2 mL 0.5 mL
P2247-1VL	Anti-phospho-Tyrosine Hydroxylase (pSer ¹⁹)	rabbit	-	diluted whole antiserum	Th, mouse Th, rat TH, human	human mammals mouse rat	WB	1 vial

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
P1747-1VL	Anti-phospho-Tyrosine Hydroxylase (pSer ³¹)	rabbit	-	affinity isolated antibody	Th, rat	rat	IHC WB	1 vial
T9573-100UL	Anti-phospho-Tyrosine Hydroxylase (pSer ⁴⁰)	rabbit	-	affinity isolated antibody	TH, human Th, mouse Th, rat	human mouse rat	IHC WB	100 µL
HPA001762-100UL	Anti-VIM	rabbit	-	affinity isolated antibody	VIM, human	human	IHC (p) PA WB	100 µL
V4630-.2ML V4630-1ML	Anti-Vimentin	goat	-	whole antiserum	VIM, human	human wide range	IF (i) IHC (f) IHC (p) WB	0.2 mL 1 mL
V6389-200UL	Monoclonal Anti-Vimentin	mouse	V9	purified immunoglobulin	VIM, human Vim, rat	bovine canine chicken feline gerbil hamster horse human monkey pig rabbit rat	ARR FACS ICC IHC (p) WB	200 µL
V2258-.2ML V2258-.5ML	Monoclonal Anti-Vimentin	mouse	LN-6	ascites fluid	VIM, human Vim, mouse Vim, rat	bovine feline human mouse pig rabbit rat sheep	IF (i) IHC (p) IP WB	0.2 mL 0.5 mL
V6630-.2ML V6630-.5ML	Monoclonal Anti-Vimentin	mouse	V9	ascites fluid	VIM, human Vim, rat	bovine canine chicken feline gerbil hamster horse human monkey pig rabbit rat	IHC (p) WB	0.2 mL 0.5 mL
V5255-.2ML V5255-.5ML	Monoclonal Anti-Vimentin	mouse	VIM-13.2	ascites fluid	VIM, human Vim, mouse Vim, rat	chicken frog human mouse rabbit rat	IF (i) WB	0.2 mL 0.5 mL
W2141-100UG	Anti-Wnt-1	goat	-	affinity isolated antibody	Wnt1, mouse	mouse	ELISA (i) WB	100 µg
W2516-500UG	Monoclonal Anti-Wnt-3a	mouse	217804	IgG fraction of antiserum	Wnt3a, mouse	mouse	ELISA (i) WB	500 µg
W2266-100UG	Anti-Wnt-4	goat	-	affinity isolated antibody	Wnt4, mouse	mouse	ELISA (i) WB	100 µg

Hematopoietic Lineage Markers

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
A2726-100UG	Anti-ADAM-10, C-terminal	rabbit	-	affinity isolated antibody	ADAM10, human	bovine human mouse rat	WB	100 µg
A2851-100UG	Anti-ADAM-10, Prohormone Convertase Activation Site	rabbit	-	affinity isolated antibody	ADAM10, human	human	WB	100 µg
A3101-100UG	Anti-ADAM-10, Propeptide Domain	rabbit	-	affinity isolated antibody	ADAM10, human	human	WB	100 µg
A2601-100UG	Anti-ADAM-12, Cytoplasmic Domain	rabbit	-	affinity isolated antibody	ADAM12, human	human	WB	100 µg
A2976	Anti-ADAM-12, N-terminal	rabbit	-	affinity isolated antibody	ADAM12, human	human	WB	
T5442-100UG	Anti-ADAM-17 (TACE), C-Terminal	rabbit	-	affinity isolated antibody	ADAM17, human Adam17, mouse Adam17, rat	human mouse rat	ARR WB	100 µg
A3976-100UG	Anti-ADAM-17, Activation Site	rabbit	-	affinity isolated antibody	ADAM17, human Adam17, rat	human pig rat	WB	100 µg
A4351-100UG	Anti-ADAM-17, Cytoplasmic Domain	rabbit	-	affinity isolated antibody	ADAM17, human Adam17, rat	human pig rat	WB	100 µg
A4226-100UG	Anti-ADAM-17, Propeptide Domain	rabbit	-	affinity isolated antibody	ADAM17, human Adam17, rat	human pig rat	WB	100 µg
B5897-.2ML	Anti-Bak	rabbit	-	IgG fraction of antiserum	BAK1, human	human	ARR IHC (p) WB	0.2 mL
B3428-.1ML	Anti-Bax	rabbit	-	IgG fraction of antiserum	BAX, human Bax, mouse Bax, rat	human mouse rat	ARR WB	0.1 mL
B8429-.2ML	Monoclonal Anti-Bax	mouse	6A7	purified immunoglobulin	BAX, human Bax, mouse Bax, rat	human mouse rat	ARR IP WB	0.2 mL
B8554-.2ML	Monoclonal Anti-Bax	mouse	2D2	purified immunoglobulin	BAX, human	bovine human	ARR WB	0.2 mL
B9804-.2ML	Monoclonal Anti-Bcl-2	mouse	10C4	purified immunoglobulin	Bcl2, mouse Bcl2, rat	mouse rat	ARR WB	0.2 mL
B3170-.2ML B3170-.5ML	Monoclonal Anti-Bcl-2	mouse	Bcl-2-100	ascites fluid	BCL2, human	human	ARR EM ICC IHC (f) IHC (p) IP WB	0.2 mL 0.5 mL
C3865-200UL	Monoclonal Anti-N-Cadherin	mouse	GC-4	purified immunoglobulin	CDH2, human Cdh2, mouse Cdh2, rat	chicken human monkey mouse rabbit rat	EM FACS ICC IHC WB	200 µL
C3678-.2ML C3678-1ML	Anti-Pan Cadherin	rabbit	-	whole antiserum	CDH2, chicken	chicken wide range	IF (i) IHC (p) WB	0.2 mL 1 mL

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
C2969-.2ML	Monoclonal Anti-I-CAM-1 (CD54)	mouse	8.4A6	purified immunoglobulin	ICAM1, human	human monkey	ELISA (i) FACS ICC IHC (f)	0.2 mL
C0551-50TST	Monoclonal Anti-CD11b	mouse	ICRF44	purified immunoglobulin	ITGAM, human	human	FACS	50 test
F2648-50TST F2648-100TST	Monoclonal Anti-CD11b-FITC	mouse	ICRF44	purified immunoglobulin	ITGAM, human	human	FACS	50 test 100 test
P8590-.2ML	Monoclonal Anti-CD31 (PECAM-1)	mouse	WM-59	purified immunoglobulin	PECAM1, human	human	IF (i)	0.2 mL
F8402-50TST F8402-100TST	Monoclonal Anti-CD31 (PECAM-1)-FITC	mouse	WM-59	purified immunoglobulin	PECAM1, human	human	FACS	50 test 100 test
P6722	Monoclonal Anti-CD38-PE	mouse	HI157	purified immunoglobulin	CD38, human	human	FACS	
C7923-50TST C7923-100TST	Monoclonal Anti-CD44	mouse	A3D8	purified immunoglobulin	CD44, human	human	FACS	50 test 100 test
F0674-50TST F0674-100TST	Monoclonal Anti-CD62E (E-Selectin)-FITC	mouse	1.2B6	purified immunoglobulin	SELE, human	human pig	FACS	50 test 100 test
C2063-100TST	Monoclonal Anti-CD71 (Transferrin Receptor)	mouse	DF 1513	purified immunoglobulin	TFRC, human	human	FACS	100 test
C9358-.2ML	Monoclonal Anti-Chk1	mouse	DCS-310	purified immunoglobulin	CHEK1, human	human	ARR IHC (p) IP WB	0.2 mL
C9233-.2ML	Monoclonal Anti-Chk2	mouse	DCS-270	purified immunoglobulin	CHEK2, human	human	ARR ICC IHC (p) IP WB	0.2 mL
K0131-.2ML	Monoclonal Anti-c-kit/SCF Receptor	mouse	K44.2	purified immunoglobulin	KITLG, human	human	FACS Neutral	0.2 mL
C6740-1VL	Anti-phospho-c-Kit (SCFR) (pTyr ⁷⁰³)	rabbit	-	affinity isolated antibody	KIT, human Kit, mouse Kit, rat	human mouse rat	WB	1 vial
C6615-1VL	Anti-phospho-c-Kit (SCFR) (pTyr ⁷³⁰)	rabbit	-	affinity isolated antibody	KIT, human Kit, mouse Kit, rat	human mouse rat	WB	1 vial
C6490-1VL	Anti-phospho-c-Kit (SCFR) (pTyr ⁸²³)	rabbit	-	affinity isolated antibody	KIT, human Kit, mouse Kit, rat	canine human mouse rat	WB	1 vial
C6365-1VL	Anti-phospho-c-Kit (SCFR) (pTyr ⁹³⁶)	rabbit	-	affinity isolated antibody	KIT, human Kit, mouse Kit, rat	canine human mouse rat	WB	1 vial
C2456-.2ML C2456-.5ML	Monoclonal Anti-Collagen, Type I	mouse	COL-1	ascites fluid	Col1a1, rat	bovine deer human pig rabbit rat	DB ELISA (i) IHC (f)	0.2 mL 0.5 mL
C7805-.2ML	Monoclonal Anti-Collagen, Type III	mouse	FH-7A	ascites fluid	COL3A1, human Col3a1, rat	human rat	DB ELISA (i) IHC (f) WB	0.2 mL

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
C1926-.2ML C1926-.5ML	Monoclonal Anti-Collagen, Type IV	mouse	COL-94	ascites fluid	COL4A5, human COL4A1, human COL4A3, human COL4A6, human COL4A4, human	human	ARR DB ELISA (i) IHC (f) IHC (p)	0.2 mL 0.5 mL
C6805-.2ML C6805-.5ML	Monoclonal Anti-Collagen, Type VII	mouse	LH7.2	ascites fluid	COL7A1, human	bovine goat guinea pig human marmoset monkey pig sheep	DB ELISA (i) ICC IF (i) WB	0.2 mL 0.5 mL
C3116-50UL	Anti-CXCR4	rabbit	-	affinity isolated antibody	CXCR4, human Cxcr4, mouse Cxcr4, rat	human	IHC (p)	50 µL
C6598-.5MG	Monoclonal Anti-CXCR4 (Fusin)	mouse	44716.111	purified immunoglobulin	CXCR4, human Cxcr4, mouse	feline human	FACS IHC (f) Neutral	0.5 mg
C8352-.1MG	Anti-CXCR4 (Fusin) (182-196)	rabbit	-	IgG fraction of antiserum	CXCR4, human	human	WB	0.1 mg
C8227-.1MG	Anti-CXCR4 (Fusin), N-Terminal	rabbit	-	IgG fraction of antiserum	CXCR4, human	human	WB	0.1 mg
C5588-.2ML	Anti-Cyclin D1	rabbit	-	IgG fraction of antiserum	Ccnd1, rat CCND1, human	human rat	ARR WB	0.2 mL
C7464-.5ML	Monoclonal Anti-Cyclin D1	mouse	DCS-6	ascites fluid	Ccnd1, mouse Ccnd1, rat CCND1, human	human monkey mouse rat	ARR ICC IHC (f) IHC (p) IP WB	0.5 mL
C7339-.5ML	Monoclonal Anti-Cyclin D2	mouse	DCS-3	ascites fluid	CCND2, human Ccnd2, mouse	human mouse	ARR ELISA (i) FACS ICC IP WB	0.5 mL
D2191-500UG	Monoclonal Anti-DC-SIGN1	mouse	120507	purified immunoglobulin	CD209, human	human	FACS IHC WB	500 µg
D2691-500UG	Monoclonal Anti-DC-SIGN1/DC-SIGN2	mouse	120612	purified immunoglobulin	CD209, human CLEC4M, human	human	FACS IHC	500 µg
D2566-500UG	Monoclonal Anti-DC-SIGN2	mouse	120604	purified immunoglobulin	CLEC4M, human	human	FACS	500 µg
E2156-200UL	Monoclonal Anti-EGF Receptor	mouse	225	purified immunoglobulin	EGFR, human	human	IP	200 µL
E6405-200UL	Monoclonal Anti-Endothelial Cell Protein C Receptor	rat	RCR-379	purified immunoglobulin	PROCR, human	human	FACS	200 µL
E6280-200UL	Monoclonal Anti-Endothelial Cell Protein C Receptor	rat	RCR-252	purified immunoglobulin	PROCR, human	human	ARR FACS	200 µL
E160-100UG	Anti-Eotaxin	goat	-	affinity isolated antibody	CCL11, human	human	ELISA (i) Neutral WB	100 µg
E4150-500UG	Monoclonal Anti-Eotaxin	rat	42285.111	purified immunoglobulin	Ccl11, mouse	mouse	ELISA (i) Neutral WB	500 µg

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
E5768-500UG	Monoclonal Anti-Eotaxin-2	mouse	61016.11	purified immunoglobulin	CCL24, human	human	ELISA (c) Neutral WB	500 µg
F4424-.1ML	Monoclonal Anti-Fas (CD95/Apo-1)	mouse	DX2	purified immunoglobulin	FAS, human	human	ARR FACS	0.1 mL
F1926-.1ML	Monoclonal Anti-Fas Ligand	mouse	Alf1.2	purified immunoglobulin	FASLG, human	human	ARR ELISA (i) FACS IP	0.1 mL
F2051-.1ML	Monoclonal Anti-Fas Ligand	mouse	Alf2.1	purified immunoglobulin	FASLG, human	human	ARR ELISA (i) FACS ICC IP	0.1 mL
F2153-.5MG	Monoclonal Anti-Fibroblast Growth Factor-4	mouse	19805.11	purified immunoglobulin	FGF4, human	human	ELISA (i) Neutral WB	0.5 mg
F3178-500UG	Monoclonal Anti-Fibroblast Growth Factor-8	mouse	47109.111	purified immunoglobulin	FGF8, human Fgf8, mouse	human mouse	ELISA (i) IHC (p) Neutral WB	500 µg
F1672-.2ML	Monoclonal Anti-Fibroblast Growth Factor-9	mouse	FG9-77	purified immunoglobulin	FGF9, human Fgf9, mouse	human mouse	ARR DB ELISA (i) WB	0.2 mL
F9049-.1MG	Anti-Fibroblast Growth Factor-10	goat	-	affinity isolated antibody	FGF10, human	human	ELISA (i) WB	0.1 mg
F5521-.1MG	Anti-Fibroblast Growth Factor-Acidic	rabbit	-	IgG fraction of antiserum	FGF1, human	bovine human	ELISA (i) Neutral WB	1 mg
F3393-.1ML F3393-5X.1ML	Anti-Fibroblast Growth Factor-Basic (1-24)	rabbit	-	fractionated antiserum	FGF2, bovine Fgf2, rat FGF2, human	bovine human rat	ELISA (i) IHC (p) WB	0.1 mL 5×0.1 mL
F5537-.5ML	Anti-Fibroblast Growth Factor-Basic	rabbit	-	IgG fraction of antiserum	FGF2, human	human	DB Neutral RIA WB	0.5 mL
F6162-.2ML	Monoclonal Anti-Fibroblast Growth Factor-Basic	mouse	FB-8	purified immunoglobulin	FGF2, human	bovine human	DB ELISA (i) Neutral RIA WB	0.2 mL
F7387-.2ML F7387-.5ML	Monoclonal Anti-Fibronectin	mouse	FN-15	ascites fluid	FN1, human Fn1, mouse	chicken human mouse	ARR ELISA (i) IF (i) WB	0.2 mL 0.5 mL
F0916-.2ML F0916-.5ML	Monoclonal Anti-Fibronectin	mouse	IST-4	ascites fluid	FN1, human	human	ELISA (i) ICC IF (i) IHC (f) IHC (p) RIA WB	0.2 mL 0.5 mL

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
F0791-.2ML F0791-.5ML	Monoclonal Anti-Fibronectin	mouse	IST-3	ascites fluid	FN1, human	bovine canine chicken goat human rabbit sheep	ARR ELISA (i) ICC IF (i) IHC (f) RIA WB	0.2 mL 0.5 mL
F6140-.2ML F6140-.5ML	Monoclonal Anti-Fibronectin, Cellular	mouse	FN-3E2	ascites fluid	FN1, human Fn1, mouse	chicken human mouse	IF (i) IHC (f) IHC (p) IP RIA WB	0.2 mL 0.5 mL
F3648-.2ML F3648-.5ML	Anti-Fibronectin	rabbit	-	affinity isolated antibody	FN1, human	human	ARR DB ELISA (d) IF (i) IHC (f) IHC (p) WB	0.2 mL 0.5 mL
F0550-.1MG	Anti-Flt-3	goat	-	affinity isolated antibody	FLT3, human	human	ELISA (i) WB	0.1 mg
F8925-.1MG	Anti-Flt-3/Flk-2 ligand (FL)	goat	-	affinity isolated antibody	Flt3l, mouse	mouse	ELISA (i) Neutral WB	0.1 mg
F9050-.1MG	Anti-Flt-3/Flk-2 ligand (FL)	goat	-	affinity isolated antibody	FLT3LG, human	human	ELISA (i) Neutral WB	0.1 mg
G0290-.2ML	Anti-GATA1	rabbit	-	affinity isolated antibody	GATA1, human	human	ARR WB	0.2 mL
G1029-500UG	Monoclonal Anti-Granulocyte Colony Stimulating Factor	mouse	3316.111	purified immunoglobulin	CSF3, human	human	ELISA (c) Neutral WB	500 µg
G0540-.5MG	Monoclonal Anti-Granulocyte Colony Stimulating Factor	rat	67604.111	purified immunoglobulin	Csf3, mouse	mouse	ELISA (i) Neutral WB	0.5 mg
G0907-.1MG	Anti-Granulocyte-Macrophage Colony Stimulating Factor	goat	-	affinity isolated antibody	Csf2, rat	rat	ELISA (i) WB	0.1 mg
G4154-.1MG	Anti-Granulocyte-Macrophage Colony Stimulating Factor Receptor α	goat	-	affinity isolated antibody	CSF2RA, human	human	ELISA (i) WB	0.1 mg
G6670-200UL	Monoclonal Anti-Growth Factor Independence-1	mouse	2.5D.17	purified immunoglobulin	GFI1, human Gfi1, mouse Gfi1, rat	human mouse rat	ARR IHC WB	200 µL
H1650-50TST H1650-100TST	Monoclonal Anti-HLA Class I Antigen	mouse	W6/32	purified immunoglobulin	HLA-B, human HLA-C, human HLA-A, human	human monkey	FACS IF (i) IP	50 test 100 test
F5662-50TST F5662-100TST	Monoclonal Anti-HLA Class I Antigen-FITC	mouse	W6/32	purified immunoglobulin	HLA-B, human HLA-C, human HLA-A, human	human monkey	FACS IF (d)	50 test 100 test
I6278-.1MG	Monoclonal Anti-Integrin α1	mouse	5E8D9	purified immunoglobulin	ITGA1, human	human	ICC	0.1 mg
I3783-100UG	Monoclonal Anti-Integrin αV	mouse	P2W7	tissue culture supernatant	ITGAV, human	human	FACS	100 µg

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
I7533-1VL	Anti-Phospho-Integrin β 1 (pSer ⁷⁸⁵)	rabbit	-	affinity isolated antibody	ITGB1, human Itgb1, rat Itgb1, mouse	chicken human mouse rat	WB	1 vial
I7408-1VL	Anti-Phospho-Integrin β 3 (pTyr ⁷⁷³)	rabbit	-	affinity isolated antibody	ITGB3, human Itgb3, mouse Itgb3, rat	human mouse rat	WB	1 vial
I7658-1VL	Anti-Phospho-Integrin β 3 (pTyr ⁷⁸⁵)	rabbit	-	affinity isolated antibody	ITGB3, human Itgb3, mouse Itgb3, rat	human mouse rat	WB	1 vial
I7783-1VL	Anti-Phospho-Integrin β 1 Receptor (pThr ⁷⁸⁸ /pThr ⁷⁸⁹)	rabbit	-	affinity isolated antibody	ITGB1, human Itgb1, mouse Itgb1, rat	chicken (predicted) human mouse (predicted) rat (predicted)	WB	1 vial
I3653-.1MG	Anti-Interferon β	goat	-	affinity isolated antibody	IFNB1, human	human	ELISA (i) WB	0.1 mg
I9016-1MG	Anti-Interferon- γ	goat	-	IgG fraction of antiserum	IFNG, human	human	ELISA (i) Neutral WB	1 mg
I9141-.1MG	Anti-Interferon- γ	goat	-	affinity isolated antibody	Ifng, mouse	mouse	ELISA (i) Neutral WB	0.1 mg
I5027-.1MG	Anti-Interferon- γ	goat	-	affinity isolated antibody	Ifng, mouse Ifng, rat	mouse rat	ELISA (i) IHC (f) Neutral WB	0.1 mg
I2908-200UL	Monoclonal Anti-Interferon- γ	hamster	H22	purified immunoglobulin	Ifng, mouse	mouse	ELISA (i) IP Neutral WB	200 μ L
I1142-.5MG	Monoclonal Anti-Interferon- γ	rat	37895.11	purified immunoglobulin	Ifng, mouse	mouse	ELISA (i) Neutral WB	0.5 mg
I5152-.1MG	Anti-Interferon- γ Receptor I (IFN- γ RI)	goat	-	affinity isolated antibody	IFNGR1, human	human	ELISA (i) Neutral WB	0.1 mg
I4902-.1MG	Anti-Interferon- α/β Receptor 1	goat	-	affinity isolated antibody	IFNAR1, human	human	ELISA (i) FACS WB	0.1 mg
I3392-1MG	Anti-Interleukin-1 α	goat	-	IgG fraction of antiserum	Il1a, mouse	mouse	ELISA (i) Neutral WB	1 mg
I5018-.5ML	Anti-Interleukin-1 α	rabbit	-	IgG fraction of antiserum	IL1A, human	human	DB Neutral RIA	0.5 mL
I3778-.5MG	Monoclonal Anti-Interleukin-1 α	mouse	59015.111	purified immunoglobulin	Il1a, rat	rat	ELISA (c) WB	0.5 mg
I3767-1MG	Anti-Interleukin-1 β	goat	-	IgG fraction of antiserum	Il1b, mouse	mouse	ELISA (i) Neutral WB	1 mg
I3642-.5MG	Monoclonal Anti-Interleukin-1 β	mouse	8516.311	purified immunoglobulin	IL1B, human	human	ELISA (i) IHC Neutral WB	0.5 mg

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
I8153-.1MG	Anti-Interleukin-1 Receptor Accessory Protein	rabbit	-	affinity isolated antibody	IL1RAP, human Il1rap, mouse Il1rap, rat	human mouse rat	WB	0.1 mg
I1404-100UG	Anti-Interleukin-1 Receptor Accessory Protein, C-Terminal	rabbit	-	affinity isolated antibody	IL1RAP, human Il1rap, mouse	human	WB	100 µg
I5527-.5MG	Monoclonal Anti-Interleukin-1 Soluble Receptor Type I	mouse	35730.111	purified immunoglobulin	IL1R1, human	human	ELISA (c) WB	0.5 mg
I8398-1MG	Anti-Interleukin-2	goat	-	IgG fraction of antiserum	IL2, mouse	mouse	Neutral	1 mg
I8273-1MG	Anti-Interleukin-2	goat	-	IgG fraction of antiserum	IL2, human	human	Neutral	1 mg
I7401-.1MG	Anti-Interleukin-2	goat	-	affinity isolated antibody	IL2, human	human	ELISA (i) Neutral WB	0.1 mg
P6847-100TST	Monoclonal Anti-Interleukin-2-R-Phycoerythrin	mouse	5334.2	purified immunoglobulin	IL2, human	human	FACS	100 test
I5652-.5MG	Monoclonal Anti-Interleukin-2 Soluble Receptor α	mouse	22722.2	purified immunoglobulin	IL2RA, human	human	ELISA (i) Neutral WB	0.5 mg
I6152-.1MG	Anti-Interleukin-2 Soluble Receptor α	goat	-	affinity isolated antibody	IL2RA, human	human	ELISA (i) FACS Neutral WB	0.1 mg
I5777-.5MG	Monoclonal Anti-Interleukin-2 Soluble Receptor β	mouse	27302.1	purified immunoglobulin	IL2RB, human	human	ELISA (i) Neutral WB	0.5 mg
I6277-250UG	Anti-Interleukin-2 Soluble Receptor β	goat	-	affinity isolated antibody	IL2RB, human	human	ELISA (i) Neutral WB	250 µg
I5902-.5MG	Monoclonal Anti-Interleukin-2 Soluble Receptor γ	mouse	38024.11	purified immunoglobulin	IL2RG, human	human	ELISA (i) Neutral WB	0.5 mg
I6402-250UG	Anti-Interleukin-2 Soluble Receptor γ	goat	-	affinity isolated antibody	IL2RG, human	human	ELISA (i) Neutral WB	250 µg
I2407-100UG	Anti-Interleukin-3 Receptor α	goat	-	affinity isolated antibody	IL3RA, human	human	ELISA (i) WB	100 µg
I1644-1MG	Anti-Interleukin-5	goat	-	IgG fraction of antiserum	IL5, mouse	mouse	Neutral	1 mg
I9898-1MG	Anti-Interleukin-5	goat	-	IgG fraction of antiserum	IL5, human	human	Neutral	1 mg
I2657-100UG	Anti-Interleukin-5 Receptor α	goat	-	affinity isolated antibody	IL5RA, human	human	ELISA (i) FACS Neutral WB	100 µg
I2143-.5ML	Anti-Interleukin-6	rabbit	-	IgG fraction of antiserum	IL6, human	human	DB Neutral RIA	0.5 mL
I7901-.5MG	Monoclonal Anti-Interleukin-6	mouse	6708.11	purified immunoglobulin	IL6, human	human	ELISA (i) Neutral WB	0.5 mg
I2532-500UG	Monoclonal Anti-Interleukin-7	mouse	7417.111	purified immunoglobulin	IL7, human	human	ELISA (c) Neutral WB	500 µg

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
I2907-500UG	Monoclonal Anti-Interleukin-7 Receptor α	mouse	40131	purified immunoglobulin	IL7R, human	human	ELISA (i) WB	500 μ g
I8026-1MG	Anti-Interleukin-8	goat	-	affinity isolated antibody	IL8, human	human	ELISA (i) IHC Neutral WB	0.1 mg
I2519-5MG	Monoclonal Anti-Interleukin-8	mouse	6217	purified immunoglobulin	IL8, human	human	ELISA (c) FACS ICC Neutral WB	0.5 mg
I5270-1MG	Anti-Interleukin-11	goat	-	IgG fraction of antiserum	IL11, human	human	Neutral	1 mg
I5395-1MG	Anti-Interleukin-12	goat	-	IgG fraction of antiserum	IL12A, human	human	Neutral	1 mg
I7642-1MG	Anti-Interleukin-12	goat	-	IgG fraction of antiserum	Il12a, mouse	mouse	ELISA (i) Neutral WB	1 mg
I4153-1MG	Anti-Interleukin-12 Receptor β 1	goat	-	affinity isolated antibody	IL12RB1, human	human	ELISA (i) WB	0.1 mg
F5900-100TST	Monoclonal Anti-Interleukin-2-Carboxyfluorescein	mouse	5334	purified immunoglobulin	IL2, human	human	FACS	100 test
I9031-100UG	Monoclonal Anti-Intracellular Adhesion Molecule 3	mouse	186-2G9	purified immunoglobulin	ICAM3, human	human	FACS IF (d) IHC IP WB	100 μ g
J4127-1MG	Anti-Jagged 1	goat	-	affinity isolated antibody	JAG1, human Jag1, rat	human rat	ELISA (i) FACS Neutral WB	0.1 mg
L9152-1MG	Anti-Leukemia Inhibitory Factor	goat	-	IgG fraction of antiserum	Lif, mouse	mouse	ELISA (i) IHC Neutral WB	1 mg
L9277-1MG	Anti-Leukemia Inhibitory Factor	goat	-	IgG fraction of antiserum	LIF, human	human	Neutral	1 mg
M6042-1MG	Anti-Macrophage Inflammatory Protein-1 α	goat	-	IgG fraction of antiserum	CCL3, human	human	ELISA (i) WB	1 mg
M6917-1MG	Anti-Macrophage Inflammatory Protein-1 α	goat	-	IgG fraction of antiserum	Ccl3, mouse	mouse	ELISA (i) Neutral WB	1 mg
M257-100UG	Anti-Macrophage Inflammatory Protein-1 β	goat	-	affinity isolated antibody	CCL4, human	human	ELISA (i) IHC (f) Neutral WB	100 μ g
M5917-1MG	Anti-Macrophage Inflammatory Protein-1 β	goat	-	IgG fraction of antiserum	Ccl4, mouse	mouse	ELISA (i) Neutral WB	1 mg
M6792-1MG	Anti-Macrophage Inflammatory Protein-1 β	goat	-	IgG fraction of antiserum	CCL4, human	human	Neutral	1 mg

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
M8159-.2ML	Monoclonal Anti-MAP Kinase, Activated (Diphosphorylated ERK-1&2)	mouse	MAPK-YT	ascites fluid	MAPK1, human MAPK3, human Mapk1, mouse Mapk3, mouse Mapk3, rat Mapk1, rat	<i>Caenorhabditis elegans</i> <i>Drosophila</i> <i>Xenopus</i> bovine hamster human mouse rat yeast	ELISA (i) ICC IHC (p) IP WB	0.2 mL
M9692-200UL	Monoclonal Anti-MAP Kinase, Activated (Diphosphorylated ERK-1&2)	mouse	MAPK-YT	purified immunoglobulin	MAPK1, human MAPK3, human Mapk1, mouse Mapk3, mouse Mapk1, rat Mapk3, rat	<i>Caenorhabditis elegans</i> <i>Drosophila</i> <i>Xenopus</i> bovine hamster human mouse rat yeast	ARR ELISA (i) ICC IHC (p) IP WB	200 µL
F7776-.2ML	Monoclonal Anti-MAP Kinase, Activated (Diphosphorylated ERK-1&2)-FITC	mouse	MAPK-YT	purified immunoglobulin	MAPK1, human MAPK3, human Mapk1, mouse Mapk3, mouse Mapk1, rat Mapk3, rat	<i>Caenorhabditis elegans</i> <i>Drosophila</i> <i>Xenopus</i> bovine hamster human mouse rat yeast	IF (d)	0.2 mL
M7802-.2ML	Monoclonal Anti-MAP Kinase, Activated/ Monophosphorylated (Phosphothreonine ERK-1&2)	mouse	ERK-PT115	purified immunoglobulin	MAPK1, human Mapk1, rat MAPK3, human Mapk3, rat	human rat	ARR ELISA (c) ICC WB	0.2 mL
M7556-200UG	Anti-MAP Kinase 2 (ERK-2)	rabbit	-	IgG fraction of antiserum	MAPK1, human Mapk1, mouse Ephb2, mouse Mapk1, rat	human mouse rat	IP WB	200 µg
M7431-.2MG	Monoclonal Anti-MAP Kinase 2 (ERK-2)	mouse	1B3B9	purified immunoglobulin	Mapk1, rat MAPK1, human Mapk1, mouse	human mouse rat	ARR IP WB	200 µg
M7927-.2ML	Anti-MAP Kinase (ERK-1, 351-368)	rabbit	-	IgG fraction of antiserum	MAPK3, human Mapk3, mouse Mapk3, rat	human mouse rat	ARR IP WB	0.2 mL
M3807-.2ML	Monoclonal Anti-MAP Kinase, Non-Phosphorylated ERK	mouse	ERK-NP2	purified immunoglobulin	MAPK1, human MAPK3, human Mapk1, rat Mapk3, rat	human rat	ARR ELISA (j) ICC WB	0.2 mL
M3940-100UG	Anti-Matrix Metalloproteinase-1	rabbit	-	IgG fraction of antiserum	MMP1, human	human	ELISA (i) IHC (f) IP WB WB CL	100 µg
M4427-.1ML	Anti-Matrix Metalloproteinase-1, N-Terminal	rabbit	-	affinity isolated antibody	MMP1, human	human	WB	0.1 mL
M4053-100UG	Anti-Matrix Metalloproteinase-1, Hemopexin Domain	rabbit	-	affinity isolated antibody	MMP1, human	human	WB	100 µg

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
M4177-50UG M4177-.1MG	Anti-Matrix Metalloproteinase-1, Hinge Region	rabbit	-	affinity isolated antibody	MMP1, human	human	ELISA (c) IHC IP WB	50 µg 0.1 mg
M6053-100UG	Anti-Matrix Metalloproteinase-3, Propeptide Region	rabbit	-	affinity isolated antibody	MMP3, human	human	WB	100 µg
M5052-.1MG	Anti-Matrix Metalloproteinase-3, N-Terminal	rabbit	-	affinity isolated antibody	MMP3, human	human	ELISA (i) IHC (p) IP WB WB CL	0.1 mg
M5427-50UG M5427-.1MG	Anti-Matrix Metalloproteinase-9 Hinge Region	rabbit	-	affinity isolated antibody	MMP9, human	human	ELISA (i) IP WB	50 µg 0.1 mg
M0306-100UG	Anti-Matrix Metalloproteinase-9, Propeptide Region	rabbit	-	affinity isolated antibody	MMP9, human	human	ELISA (i) IHC (f) IP WB	100 µg
M5177-.1MG	Anti-Matrix Metalloproteinase-9, C-Terminal	rabbit	-	affinity isolated antibody	MMP9, human	human	WB	0.1 mg
M5302-.1MG	Anti-Matrix Metalloproteinase-9, N-Terminal	rabbit	-	affinity isolated antibody	MMP9, human	human	WB	0.1 mg
M2420-.5MG	Monoclonal Anti-Monocyte Chemotactic Protein-1	mouse	24822.11	purified immunoglobulin	CCL2, human	human	ELISA (i) IHC (p) Neutral WB	0.5 mg
M254-100UG	Anti-Monocyte Chemotactic Protein 2	goat	-	affinity isolated antibody	CCL8, human	human	ELISA (i) Neutral WB	100 µg
M8413-.5MG	Monoclonal Anti-Monocyte Chemotactic Protein-2	mouse	35509.11	purified immunoglobulin	CCL8, human	human	ELISA (i) Neutral WB	0.5 mg
M255-100UG	Anti-Monocyte Chemotactic Protein 3	goat	-	affinity isolated antibody	CCL7, human	human	ELISA (i) Neutral WB	100 µg
M8663-.5MG	Monoclonal Anti-Monocyte Chemotactic Protein-3	mouse	36320.11	purified immunoglobulin	CCL7, human	human	ELISA (i) Neutral WB	0.5 mg
O3389-100UG	Anti-Osteopontin	goat	-	affinity isolated antibody	SPP1, human	human	ELISA (i) IHC Neutral WB	100 µg
O7635-.1MG	Anti-Osteopontin	goat	-	affinity isolated antibody	Spp1, mouse	mouse	ELISA (c) IHC Neutral WB	0.1 mg
O7264-200UL	Anti-Osteopontin	rabbit	-	affinity isolated antibody	SPP1, human	human	IHC (p) WB	200 µL
O1139-100UG	Anti-Osteoprotegerin	goat	-	affinity isolated antibody	Tnfrsf11b, mouse	mouse	ELISA (i) Neutral WB	100 µg
O7262-.1MG	Anti-Osteoprotegerin	goat	-	affinity isolated antibody	TNFRSF11B, human	human	ELISA (i) WB	0.1 mg

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
P4229-.2ML	Monoclonal Anti-p18INK4c	mouse	DCS-118	ascites fluid	CDKN2C, human	human	IHC (p) WB	0.2 mL
P4354-.2ML	Monoclonal Anti-p19INK4d	mouse	DCS-100	ascites fluid	CDKN2D, human	human	ARR ICC IHC (p) IP WB	0.2 mL
P8246-1VL	Anti-phospho-PDGFRα (pTyr ⁷⁴²)	rabbit	-	affinity isolated antibody	PDGFA, human Pdgfa, mouse Pdgfa, rat	human mouse rat	WB	1 vial
P7996-1VL	Anti-phospho-PDGFRα (pTyr ⁷⁶²)	rabbit	-	affinity isolated antibody	PDGFA, human Pdgfa, mouse Pdgfa, rat	human mouse rat	WB	1 vial
P0994-100UL	Anti-Peroxisome Proliferator Activated Receptor	rabbit	-	whole antiserum	MED1, human Ppara, mouse Ppara, rat	mouse rat	IP WB	100 µL
P249-100UL	Anti-Peroxisome Proliferator Activated Receptor	rabbit	-	whole antiserum	Ppara, mouse Ppara, rat	mouse rat	IP WB	100 µL
P0744-100UL	Anti-Peroxisome Proliferator Activated Receptor γ 2	rabbit	-	affinity isolated antibody	PPARG, human Pparg, mouse	mouse	IF (i) WB	100 µL
P6101-1MG	Anti-Platelet-Derived Growth Factor	goat	-	IgG fraction of antiserum	PDGFA, human PDGFB, human	human	ELISA (i) Neutral WB	1 mg
P5976-.1MG	Anti-Platelet-Derived Growth Factor-BB	goat	-	affinity isolated antibody	PDGFB, human	human	ELISA (i) Neutral WB	0.1 mg
P2110-.1MG	Anti-Platelet-Derived Growth Factor Receptor α	goat	-	affinity isolated antibody	PDGFRA, human	human	ELISA (i) IHC (p) Neutral WB	0.1 mg
P7679-.2ML P7679-.5ML	Monoclonal Anti-Platelet-Derived Growth Factor Receptor β	mouse	PDGFR-B2	ascites fluid	PDGFRB, human	human pig	ARR IHC (f) IP WB	0.2 mL 0.5 mL
P2229-.1MG	Anti-Platelet-Derived Growth Factor Soluble Receptor β	goat	-	affinity isolated antibody	PDGFRB, human	human	ELISA (i) FACS IHC Neutral WB	0.1 mg
R3028-200UL	Anti-RALT/MIG-6 (PE-16)	rabbit	-	affinity isolated antibody	ERRFI1, human Errf1, mouse Errf1, rat	mouse	IF (i) IP WB	200 µL
R2903-200UL	Anti-RALT/Mig-6 (SG-16)	rabbit	-	affinity isolated antibody	ERRFI1, human Errf1, rat	human	WB	200 µL
R125-100UG	Anti-RANTES	goat	-	affinity isolated antibody	CCL5, human	human	ELISA (i) IHC (f) Neutral WB	100 µg
R9400-500UG	Monoclonal Anti-RANTES	rat	53405.111	purified immunoglobulin	Ccl5, mouse	mouse	ELISA (i) Neutral WB	500 µg
R9528-100UG	Anti-RUNX1	rabbit	-	affinity isolated antibody	RUNX1, human Runx1, mouse Runx1, rat	human rodent	IHC WB	100 µg
HPA004176-100UL	Anti-RUNX1	rabbit	-	affinity isolated antibody	RUNX1, human	human	IHC (p) PA	100 µL

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
S192-100UG	Anti-SDF-1/PBSF	goat	-	affinity isolated antibody	CXCL12, human	human	ELISA (i) Neutral WB	100 µg
S2687-.1MG	Anti-SDF-1β/PBSF	goat	-	affinity isolated antibody	CXCL12, human	human	ELISA (i) Neutral WB	0.1 mg
S9555-.2ML	Monoclonal Anti-E-Selectin (CD62E)	mouse	1.2B6	purified immunoglobulin	SELE, human	human pig	ELISA (i) FACS IHC (f) IP WB	0.2 mL
S1300-.2ML	Monoclonal Anti-L-Selectin (CD62L)	mouse	FMC46	purified immunoglobulin	SELL, human	human	FACS IHC (f)	0.2 mL
T5692-.1MG	Monoclonal Anti-TCF-3/4	mouse	6F12-3	purified immunoglobulin	-	human mouse	IHC (p) WB	0.1 mg
T5567-.1MG	Monoclonal Anti-TCF-1 (T-Cell Factor-1)	mouse	7H3	purified immunoglobulin	HNF1A, human	human	IHC (f) IP WB	0.1 mg
T5817-.1MG	Monoclonal Anti-TCF-4 (T-Cell Factor-4)	mouse	6H5-3	purified immunoglobulin	TCF4, human Tcf4, mouse	human mouse	IHC IP WB	0.1 mg
T4930-.1MG	Anti-Thrombopoietin	goat	-	affinity isolated antibody	Thpo, mouse	mouse	ELISA (i) Neutral WB	0.1 mg
M8023-.25ML	Monoclonal Anti-Thy 1.2	mouse	TS	purified immunoglobulin	Thy1, mouse	mouse	IF (i)	0.25 mL
T8322-100UG	Anti-Tissue Inhibitor of Metalloproteinase-1, First Loop	rabbit	-	affinity isolated antibody	TIMP1, human	human	ELISA (i) IHC (f) IP WB WB CL	100 µg
T8062-.1MG	Anti-Tissue Inhibitor of Metalloproteinase-2, First Loop	rabbit	-	affinity isolated antibody	TIMP2, human	human	WB	0.1 mg
T8072-100UG	Anti-Tissue Inhibitor of Metalloproteinase-2, Second Loop	rabbit	-	affinity isolated antibody	TIMP2, human	human	WB WB CL	100 µg
T7937-.1MG	Anti-Tissue Inhibitor of Metalloproteinase-2, C-Terminal	rabbit	-	affinity isolated antibody	TIMP2, human Timp2, mouse Timp2, rat	bovine guinea pig human mouse rabbit rat	IHC (p) WB	0.1 mg
T5160-100UG	Anti-Tissue Inhibitor of Metalloproteinase-2, Third Loop	rabbit	-	affinity isolated antibody	TIMP2, human Timp2, mouse Timp2, rat	bovine human mouse pig rat	WB	100 µg
T0563-.1MG	Anti-Transforming Growth Factor-α	goat	-	affinity isolated antibody	TGFA, human	human	ELISA (c) IHC Neutral WB	0.1 mg
T0688-.1MG	Anti-Transforming Growth Factor-β1	chicken	-	affinity isolated antibody	TGFB1, human	human	ELISA (i) Neutral WB	0.1 mg

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
T0438-.5MG	Monoclonal Anti-Transforming Growth Factor- β 1	mouse	9016.2	purified immunoglobulin	TGFB1, human Tgfb1, mouse Tgfb1, rat	human mouse rat	ELISA (c) IHC Neutral WB	0.5 mg
T4442-.1MG	Anti-Transforming Growth Factor- β 2	goat	-	affinity isolated antibody	TGFB2, human	human pig	ELISA (i) IHC (p) Neutral WB	0.1 mg
T4692-100UG	Anti-Transforming Growth Factor- β 3	goat	-	affinity isolated antibody	TGFB3, human	human	ELISA (i) Neutral WB	100 μ g
T4817-1MG	Anti-Transforming Growth Factor- β 5	goat	-	IgG fraction of antiserum	-	amphibian	ELISA (i) Neutral WB	1 mg
T9429-1MG	Anti-Transforming Growth Factor- β , pan	rabbit	-	IgG fraction of antiserum	TGFB3, human TGFB1, human TGFB2, human	amphibian human pig	ARR ELISA (i) Neutral WB	1 mg
T1940-250UG	Anti-Transforming Growth Factor- β Soluble Receptor III	goat	-	affinity isolated antibody	TGFBR3, human TGFBR2, human	human	ELISA (i) WB	250 μ g
T3176-1MG	Anti-Tumor Necrosis Factor- β	goat	-	IgG fraction of antiserum	LTA, human	human	Neutral	1 mg
T2065-.1MG	Anti-Tumor Necrosis Factor Soluble Receptor I	goat	-	affinity isolated antibody	TNFRSF1A, human	human	ELISA (i) WB	0.1 mg
T2190-.1MG	Anti-Tumor Necrosis Factor Soluble Receptor I	goat	-	affinity isolated antibody	Tnfrsf1a, mouse	mouse	ELISA (i) WB	0.1 mg
T2440-.1MG	Anti-Tumor Necrosis Factor Soluble Receptor II	goat	-	affinity isolated antibody	Tnf, mouse Tnfrsf1a, mouse Tnfrsf1b, mouse	mouse	ELISA (i) WB	0.1 mg
T2315-1MG	Anti-Tumor Necrosis Factor Soluble Receptor Type II	goat	-	IgG fraction of antiserum	TNF, human	human	ELISA (i) WB	1 mg
U3254-.2ML U3254-.5ML	Monoclonal Anti-Uvomorulin/E-Cadherin	rat	DECMA-1	ascites fluid	CDH1, human Cdh1, mouse	bovine canine human mouse	ARR IF (i) IHC (f) IP WB	0.2 mL 0.5 mL
V9263-100UG	Monoclonal Anti-Vascular Cell Adhesion Molecule 1	mouse	1.4C3	purified immunoglobulin	VCAM1, human	human	IHC (p)	100 μ g
V1014-100UG	Anti-Vascular Endothelial Growth Factor Receptor 2	goat	-	affinity isolated antibody	Kdr, mouse	mouse	ELISA (i) IHC Neutral WB	100 μ g
V3003-.2ML	Monoclonal Anti-Vascular Endothelial Growth Factor Receptor-2 (KDR)	mouse	260.4, KDR-2	ascites fluid	KDR, human	human	ELISA (i) IHC (f) WB	0.2 mL
B0555-.2ML	Monoclonal Anti-Vascular Endothelial Growth Factor Receptor-2 (KDR)-Biotin	mouse	260.4, KDR-2	purified immunoglobulin	KDR, human	human	WB	0.2 mL
V1514-200UL	Anti-VE-Cadherin (CD144)	rabbit	-	affinity isolated antibody	CDH5, human	human	IHC (f) WB	200 μ L

Pancreatic Lineage Markers

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
A1594-1MG	Anti-Activin A	goat	-	affinity isolated antibody	INHBA, human	human	ELISA (i) IHC (p) Neutral WB	0.1 mg
A1719-.5MG	Monoclonal Anti-Activin A β A subunit	mouse	69403.11	purified immunoglobulin	-	human	ELISA (i) Neutral WB	0.5 mg
B2430-500UG	Monoclonal Anti-Betacellulin	mouse	34362.11	purified immunoglobulin	BTC, human	human	ELISA (c) WB	500 μ g
G6282-.2ML G6282-.5ML	Monoclonal Anti- β -Galactosidase	mouse	GAL-40	ascites fluid	-	-	DB ICC WB	0.2 mL 0.5 mL
G8021-.2ML G8021-.5ML	Monoclonal Anti- β -Galactosidase	mouse	GAL-13	ascites fluid	-	-	DB ELISA (i) ICC	0.2 mL 0.5 mL
G4644-1VL	Anti- β -Galactosidase	mouse	-	ascites fluid	-	-	WB	1 vial
G0785-.2ML G0785-.5ML	Anti-Gastrin I	rabbit	-	whole antiserum	GAST, human	human	IHC (p) RIA	0.2 mL 0.5 mL
G2654-.2ML G2654-.5ML	Monoclonal Anti-Glucagon	mouse	K79bB10	ascites fluid	GCG, human Gcg, mouse Gcg, rat	canine feline guinea pig human mouse pig rabbit rat	DB IHC (p) RIA	0.2 mL 0.5 mL
G1045-50UL	Anti-Glucagon Receptor	rabbit	-	affinity isolated antibody	GCGR, human Gcgr, mouse Gcgr, rat	human	IHC (p)	50 μ L
H1896-.5MG	Monoclonal Anti-Hepatocyte Growth Factor	mouse	24612.111	purified immunoglobulin	HGF, human	human	ELISA (i) Neutral WB	0.5 mg
H0652-1MG	Anti-Hepatocyte Growth Factor	goat	-	IgG fraction of antiserum	HGF, human	human	ELISA (i) Neutral WB	1 mg
H0540-100UG	Anti-Hepatocyte Growth Factor	goat	-	affinity isolated antibody	Hgf, mouse	mouse	ELISA (c) IHC WB	100 μ g
H7157-.1MG	Anti-Hepatocyte Growth Factor	goat	-	affinity isolated antibody	HGF, human	human	ELISA (i) IHC (p) WB	0.1 mg
H9911-100UG	Anti-Hepatocyte Growth Factor Receptor	goat	-	affinity isolated antibody	Met, mouse	mouse	ELISA (i) Neutral WB	100 μ g
H9786-100UG	Anti-Hepatocyte Growth Factor Receptor (c-Met)	goat	-	affinity isolated antibody	MET, human Met, mouse	human	ELISA (i) FACS IHC WB	100 μ g
HPA002196-100UL	Anti-IGFBP7	rabbit	-	affinity isolated antibody	IGFBP7, human	human	IHC (p) PA WB	100 μ L

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
I8510-1ML	Anti-Insulin	guinea pig	-	whole antiserum	INS, human	bovine human pig	RIA	1 mL
I2018-.2ML I2018-.5ML	Monoclonal Anti-Insulin	mouse	K36AC10	ascites fluid	INS, human	bovine canine feline guinea pig horse human monkey pig rabbit rat sheep	DB IHC (p) RIA	0.2 mL 0.5 mL
I1783-1VL	Anti-phospho-Insulin Receptor (IR) (pTyr ⁹⁷²)	rabbit	-	affinity isolated antibody	INSRR, human Insr, mouse	human mouse	WB	1 vial
I7153-.1MG	Anti-Insulin Receptor Substrate 1 (IRS-1)	rabbit	-	affinity isolated antibody	IRS1, human Irs1, mouse Irs1, rat	human mouse rat	IP WB	0.1 mg
I2533-1VL	Anti-phospho-Insulin Receptor Substrate-1 (pSer ³¹²)	rabbit	-	affinity isolated antibody	IRS1, human Irs1, mouse Irs1, rat	human	WB	1 vial
I2408-1VL	Anti-phospho-Insulin Receptor Substrate-1 (pTyr ⁸⁹⁶)	rabbit	-	affinity isolated antibody	IRS1, human Irs1, mouse Irs1, rat	human mouse (predicted) rat (predicted)	WB	1 vial
I1658-1VL	Anti-phospho-Insulin Receptor Substrate-1 (pTyr ¹¹⁷⁹)	rabbit	-	affinity isolated antibody	IRS1, human Irs1, mouse Irs1, rat	human mouse rat	WB	1 vial
I5034-100UL	Anti-Insulin Receptor Substrate 2	rabbit	-	IgG fraction of antiserum	IRS2, human Irs2, mouse Irs2, rat	human mouse rat	IP WB	100 µL
K4760-250UG	Anti-Keratinocyte Growth Factor	goat	-	affinity isolated antibody	FGF7, human	human	ELISA (i) IHC (p) Neutral WB	250 µg
HPA007261-100UL	Anti-KRT9	rabbit	-	affinity isolated antibody	KRT9, human	human	IHC (p) PA WB	100 µL
HPA003995-100UL	Anti-MAPK3	rabbit	-	affinity isolated antibody	MAPK3, human	human	IHC (p) PA	100 µL
HPA005700-100UL	Anti-MAPK3	rabbit	-	affinity isolated antibody	MAPK3, human	human	IHC (p) PA WB	100 µL
HPA004149-100UL	Anti-MCHR1	rabbit	-	affinity isolated antibody	MCHR1, human	human	IHC (p) PA	100 µL
C7115	Anti-phospho-c-Met (pTyr ¹⁰⁰³)	rabbit	-	affinity isolated antibody	Met, rat MET, human Met, mouse	human mouse rat	WB	
HPA006806-100UL	Anti-PAX4	rabbit	-	affinity isolated antibody	PAX4, human	human	IHC (p) PA	100 µL
HPA007182-100UL	Anti-PAX4	rabbit	-	affinity isolated antibody	PAX4, human	human	IHC (p) PA	100 µL

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
P9995-100UG	Anti-Pdx-1	rabbit	-	affinity isolated antibody	PDX1, human Pdx1, mouse Pdx1, rat	human rodent	IHC WB	100 µg
S1445-50UL	Anti-Somatostatin Receptor Type 1	rabbit	-	affinity isolated antibody	SSTR1, human Sstr1, mouse Sstr1, rat	human	IHC (p)	50 µL
S0695-50UL	Anti-Somatostatin Receptor Type 2	rabbit	-	affinity isolated antibody	SSTR2, human Sstr2, mouse Sstr2, rat	human	IHC (p)	50 µL
S0694-50UL S0694-200UL	Anti-Somatostatin Receptor Type 2	rabbit	-	affinity isolated antibody	SSTR2, human Sstr2, mouse Sstr2, rat	rat	WB	50 µL 200 µL
S0945-50UL	Anti-Somatostatin Receptor Type 4	rabbit	-	affinity isolated antibody	Sstr4, mouse SSTR4, human Sstr4, rat	human	IHC (p)	50 µL
HPA007264-100UL	Anti-SSTR2	rabbit	-	affinity isolated antibody	SSTR2, human	human	IHC (p) PA	100 µL
T0563-.1MG	Anti-Transforming Growth Factor-α	goat	-	affinity isolated antibody	TGFA, human	human	ELISA (c) IHC Neutral WB	0.1 mg

Cardiac Lineage Markers

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
A2172-.2ML	Monoclonal Anti-Actin (α -Sarcomeric)	mouse	5C5	ascites fluid	Rwdd2a, mouse	bovine	ELISA (i)	0.2 mL
A2172-.5ML					Actc1, rat	frog	IHC (f)	0.5 mL
					Acta1, rat	guinea pig	IHC (p)	
					ACTC1, human	human	WB	
					ACTA1, human	rabbit		
						rat		
						sheep		
						snake		
A5691-.2ML	Monoclonal Anti-Actin, α -Smooth Muscle- Alkaline Phosphatase	mouse	1A4	purified immu- noglobulin	Acta2, mouse Acta2, rat	bovine canine chicken frog goat guinea pig human mouse rabbit rat sheep snake	IHC (p) WB	0.2 mL
A5228-200UL	Monoclonal Anti-Actin, α -Smooth Muscle	mouse	1A4	purified immu- noglobulin	ACTA2, human Acta2, mouse Acta2, rat	bovine canine chicken frog goat guinea pig human mouse rabbit rat sheep snake	ARR ELISA (i) ICC IF (i) IHC (p) WB	200 μ L
A2543-.2ML	Anti- α -Actinin	rabbit	-	whole antiserum	ACTN4, chicken	chicken	IF (i)	0.2 mL
A2543-1ML					ACTN2, chicken		WB	1 mL
A5044-.2ML	Monoclonal Anti- α - Actinin	mouse	BM-75.2	ascites fluid	ACTN1, human	bovine	ARR	0.2 mL
A5044-.5ML					Actn1, mouse	chicken	IF (i)	0.5 mL
						human	WB	
HPA006035-100UL	Anti-ACTN1	rabbit	-	affinity isolated antibody	ACTN1, human	human	IHC (p) PA WB	100 μ L
HPA001873-100UL	Anti-ACTN4	rabbit	-	affinity isolated antibody	ACTN4, human	human	IHC (p) PA WB	100 μ L
HPA010926-100UL	Anti-ALCAM	rabbit	-	affinity isolated antibody	ALCAM, human	human	IHC (p) PA	100 μ L
HPA002462-100UL	Anti-ANXA6	rabbit	-	affinity isolated antibody	ANXA6, human	human	IHC (p) PA WB	100 μ L
B9553-.5MG	Monoclonal Anti- Bone Morphogenetic Protein 2	mouse	65529.111	purified immu- noglobulin	BMP2, human	human	ELISA (i) WB	0.5 mg

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
C3865-200UL	Monoclonal Anti-N-Cadherin	mouse	GC-4	purified immunoglobulin	CDH2, human Cdh2, mouse Cdh2, rat	chicken human monkey mouse rabbit rat	EM FACS ICC IHC WB	200 µL
C9992-25UL C9992-200UL	Anti-Caveolin-2	rabbit	-	affinity isolated antibody	Cav2, mouse Cav2, rat CAV2, human	canine human (predicted) mouse pig (pre- dicted) rat	WB	25 µL 200 µL
P8590-.2ML	Monoclonal Anti-CD31 (PECAM-1)	mouse	WM-59	purified immunoglobulin	PECAM1, human	human	IF (i)	0.2 mL
F8402-50TST F8402-100TST	Monoclonal Anti-CD31 (PECAM-1)-FITC	mouse	WM-59	purified immunoglobulin	PECAM1, human	human	FACS	50 test 100 test
HPA009139-100UL	Anti-CDH15	rabbit	-	affinity isolated antibody	CDH15, human	human	IHC (p) PA	100 µL
HPA001767-100UL	Anti-CDH3	rabbit	-	affinity isolated antibody	CDH3, human	human	IHC (p) PA	100 µL
C6219-.2ML	Anti-Connexin-43	rabbit	-	affinity isolated antibody	GJA1, human Gja1, mouse Gja1, rat	human mammals	ARR ICC IF (i) IHC (f) IHC (p) WB	0.2 mL
C8093-.2ML	Monoclonal Anti-Connexin-43	mouse	CXN-6	ascites fluid	Gja1, mouse Gja1, rat GJA1, human GJA1P1, human	bovine hamster human mouse rat	ARR ELISA (i) ICC IHC (f) IHC (p) WB	0.2 mL
D8281-.2ML D8281-1ML	Anti-Desmin	rabbit	-	whole antiserum	DES, human Des, mouse	bovine chicken human mouse	IF (i) IF (i) WB	0.2 mL 1 mL
D1033-.2ML D1033-.5ML	Monoclonal Anti-Desmin	mouse	DE-U-10	ascites fluid	Des, mouse Des, rat	bovine chicken feline goat hamster lizard mouse rabbit rat sheep viper	ARR IF (i) WB	0.2 mL 0.5 mL
G8794-100UG	Anti-GATA4	rabbit	-	affinity isolated antibody	GATA4, human Gata4, mouse Gata4, rat	human mouse rat	ICC WB	100 µg
G8044-1VL	Anti-Phospho-GATA4 (pSer ¹⁰⁵)	rabbit	-	affinity isolated antibody	GATA4, human Gata4, mouse Gata4, rat	mammals mouse	WB	1 vial
G1544-100UG	Anti-GFP, N-terminal	rabbit	-	affinity isolated antibody	-	-	IP WB	100 µg

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
G1546-200UL	Monoclonal Anti-Green Fluorescent Protein (GFP)	mouse	GSN149	purified immunoglobulin	-	<i>Aequorea victoria</i> (jellyfish)	ELISA (i) WB	200 µL
HPA004471-100UL	Anti-KIT	rabbit	-	affinity isolated antibody	KIT, human	human	IHC (p) PA	100 µL
HPA005533-100UL	Anti-MEF2C	rabbit	-	affinity isolated antibody	MEF2C, human	human	IHC (p) PA	100 µL
HPA001349-100UL	Anti-MYH6	rabbit	-	affinity isolated antibody	MYH6, human MYH7, human	human	IHC (p) PA	100 µL
HPA001239-100UL	Anti-MYH7	rabbit	-	affinity isolated antibody	MYH7, human	human	IHC (p) PA	100 µL
HPA001644-100UL	Anti-MYH9	rabbit	-	affinity isolated antibody	MYH9, human	human	IHC (p) PA	100 µL
HPA001356-100UL	Anti-MYO5A	rabbit	-	affinity isolated antibody	MYO5A, human	human	IHC (p) PA	100 µL
M5815-100UG	Monoclonal Anti-Myogenin	mouse	F12B	purified immunoglobulin	MYOG, human Myog, mouse Myog, rat	human mouse rat	ELISA (i) IF (i) IHC (p) IP WB	100 µg
N5413-100UG	Anti-Nestin	rabbit	-	affinity isolated antibody	NES, human Nes, mouse Nes, rat	human mouse rat	FACS IHC WB	100 µg
WH0001482M1-100UG	Monoclonal Anti-NKX2-5	mouse	1E4-G5	purified immunoglobulin	NKX2-5, human	human	ELISA (i) WB	100 µg
HPA008755-100UL	Anti-PCDHGA12	rabbit	-	affinity isolated antibody	PCDHGC5, human	human	IHC (p) PA WB	100 µL
HPA004690-100UL	Anti-PECAM1	rabbit	-	affinity isolated antibody	PECAM1, human	human	IHC (p) PA	100 µL
S2562-100UG	Anti-Stem Cell Factor Receptor (SCF R)	goat	-	affinity isolated antibody	KIT, human	human	ELISA (i) Neutral WB	100 µg
T3192-1MG	Anti-Tie 2	goat	-	affinity isolated antibody	TEK, human	human	ELISA (i) Neutral WB	0.1 mg
T6277-.2ML T6277-.5ML	Monoclonal Anti-Troponin T	mouse	JLT-12	ascites fluid	Tnnt2, rat Tnnt3, rat Tnnt1, rat	bovine chicken rabbit rat	IHC WB	0.2 mL 0.5 mL
V1014-100UG	Anti-Vascular Endothelial Growth Factor Receptor 2	goat	-	affinity isolated antibody	Kdr, mouse	mouse	ELISA (i) IHC Neutral WB	100 µg
V1514-200UL	Anti-VE-Cadherin (CD144)	rabbit	-	affinity isolated antibody	CDH5, human	human	IHC (f) WB	200 µL
HPA001762-100UL	Anti-VIM	rabbit	-	affinity isolated antibody	VIM, human	human	IHC (p) PA WB	100 µL
V4630-.2ML V4630-1ML	Anti-Vimentin	goat	-	whole antiserum	VIM, human	human wide range	IF (i) IHC (f) IHC (p) WB	0.2 mL 1 mL

Cat. No.	Product Name	Host	Clone No.	Form	Gene Symbol	Species Reactivity	Application	Qty.
V6389-200UL	Monoclonal Anti-Vimentin	mouse	V9	purified immunoglobulin	VIM, human Vim, rat	bovine canine chicken feline gerbil hamster horse human monkey pig rabbit rat	ARR FACS ICC IHC (p) WB	200 µL
V5255-.2ML V5255-.5ML	Monoclonal Anti-Vimentin	mouse	VIM-13.2	ascites fluid	VIM, human Vim, mouse Vim, rat	chicken frog human mouse rabbit rat	IF (i) WB	0.2 mL 0.5 mL
V2258-.2ML V2258-.5ML	Monoclonal Anti-Vimentin	mouse	LN-6	ascites fluid	VIM, human Vim, mouse Vim, rat	bovine feline human mouse pig rabbit rat sheep	IF (i) IHC (p) IP WB	0.2 mL 0.5 mL
C9080-.2ML C9080-.5ML	Monoclonal Anti-Vimentin–Cy3	mouse	V9	purified immunoglobulin	VIM, human Vim, rat	bovine canine chicken feline gerbil hamster horse human monkey pig rabbit rat	IF (d) IHC (f) IHC (p)	0.2 mL 0.5 mL

Antibody Application Table

Application	Abbreviation
ANA-indirect immunofluorescence	IF (ANA)
Capture ELISA	ELISA (c)
Direct ELISA	ELISA (d)
Direct immunofluorescence	IF (d)
Dot blot	DB
Dot immunobinding	DIBA
Electron microscopy	EM
Enzyme immunoassay	EIA
Flow cytometry	FACS
Immunoblotting	WB
Immunoblotting (chemiluminescent)	WB CL
Immunocytochemistry	ICC
Immuno-electrophoresis	IEP

Application	Abbreviation
Immunohistochemistry	IHC
Immunohistochemistry (formalin-fixed, paraffin-embedded sections)	IHC (p)
Immunohistochemistry (frozen sections)	IHC (f)
Immunoprecipitation	IP
Indirect ELISA	ELISA (i)
Indirect immunofluorescence	IF (i)
Microarray	ARR
Neutralization	Neutral
Ouchterlony double diffusion	ODD
Particle immunofluorescence	PIFA
Quantitative precipitin assay	QPA
Radioimmunoassay	RIA

How to Choose a Secondary Antibody

The following information is provided to help you decide which secondary antibody may be best for your particular application. In most cases, there are actually several antibody-conjugates that would work well in a particular application and finding the best one requires comparing them side-by-side.

1. In what animal was the primary antibody developed?

For example, if your primary antibody is raised in a mouse, you will need an anti-mouse secondary antibody. If it is raised in a rabbit, for example A2066 (rabbit anti-actin), you will need an anti-rabbit secondary antibody.

2. What is the class and/or subclass of the primary antibody?

This is primarily important in the case of monoclonal antibodies. Polyclonal antibodies (generally developed in rabbit, goat, sheep or donkey) are typically IgG class immunoglobulins. For this reason, the secondary antibodies for these species will mainly be anti-IgG.

Monoclonal antibodies (MAbs) are most commonly developed in mice and occasionally in rats. The class and subclass of our monoclonals is indicated in the product listing. Sigma offers a number of different secondary antibodies to mouse monoclonals and reflect the different subclasses. For example, if the primary MAb is mouse IgM, one would want a secondary antibody that reacts with mouse IgM (anti-Mouse IgM or anti-Mouse IgG (Fab)).

If the primary monoclonal is one of the mouse IgG subclasses (IgG1, IgG2a, IgG2b, or IgG3), almost any of our anti-mouse IgG secondary antibodies should bind to it. However, we offer different specificities to provide the end-user with options, especially for specific double

labeling experiments. If the class and/or subclass of the primary antibody is not known, the anti-mouse IgG (Fab) secondary antibodies may be used since they recognize most mouse immunoglobulin subtypes.

You may experience difficulty when choosing the best secondary anti-mouse or anti-human IgG. This is because there are many specificities to IgG. The important thing to remember is that light chains (kappa and lambda) of immunoglobulins are shared among all the immunoglobulin classes. That is, IgG, IgM, IgA, IgD and IgE all have either kappa or lambda light chains. The heavy chain (lambda for IgG, μ for IgM and alpha for IgA), however, is class specific. The following summarizes the specificities we offer:

- Polyvalent: react with all classes
- Fc and heavy-chain specific: react with heavy chains only, therefore, they are class specific (i.e., gamma chain specific reacts only with IgG; μ chain specific reacts only with IgM, etc.)
- Fab and whole molecule (wm) specific: react with heavy and light chains. Due to the light chain reactivity, they can react with all classes
- Light chain (kappa or lambda) specific: react with all classes, since all classes use the same kappa or lambda light chains

For complete listings of all secondary antibodies, visit sigma.com/antibodies

3. What form of antibody should be used?

Most people prefer affinity isolated antibodies. These products are the most purified, and therefore, give the lowest amount of non-specific binding. However, in certain cases, IgG fractions may be considered. Such IgG fractions may have the benefit of containing very high affinity antibodies. Affinity isolation may remove some very high affinity antibodies because they bind so tightly to the affinity matrix that they are not eluted. Therefore, IgG fractions may be useful in situations where very high affinity is required, most commonly when the antigen of interest is rare or present in low abundance.

4. What kind of label?

The label is very application dependent. For immunoblotting and ELISA, enzyme-labeled secondary antibodies are the most popular. Peroxidase is economical, rapid and a more stable enzyme, in general, than alkaline phosphatase. Also, it has become very popular for use in chemiluminescent detection systems. Alkaline phosphatase, on the other hand, is considered more sensitive than peroxidase particularly when colorimetric detection is used.

For cell or tissue staining, alkaline phosphatase, peroxidase or fluorescent secondary antibodies may be used for cytochemistry or histochemistry. Secondary antibodies labeled with a fluorochrome (FITC, phycoerythrin, and Quantum Red) may be used for flow cytometry.

To generate increased amplification, a two-step biotin/avidin system may be used. Biotin binds with very high affinity to avidin resulting in an essentially irreversible interaction. A biotinylated secondary antibody is applied first, then avidin, ExtrAvidin®, or streptavidin conjugated to an enzyme or fluorochrome binds to multiple sites on the biotinylated secondary antibody, thus amplifying the signal and resulting in greater sensitivity than that achieved with an antibody-enzyme or antibody-fluorochrome conjugate alone.

5. Is there an appropriate adsorbed secondary antibody available?

If working with human tissues, cells or proteins, choose a secondary antibody that has been adsorbed with human serum or human IgG. If working with bovine tissues, cells or proteins, choose a product that has been adsorbed with bovine serum or bovine IgG, etc. Using these products will reduce non-specific background

6. Is a F(ab')₂ fragment product necessary?

If working with tissues or cells that have Fc receptors (thymus, spleen, blood, leukocytes, B cells etc.), choose an F(ab')₂ fragment when possible to eliminate non-specific binding through Fc receptors present on cells. Alternatively, Fc receptors can be blocked. Perform an absorption step, using purified IgG from the host species of the secondary antibody. In that case an F(ab')₂ secondary antibody may not be necessary.

Growth Factors in Stem Cell Biology

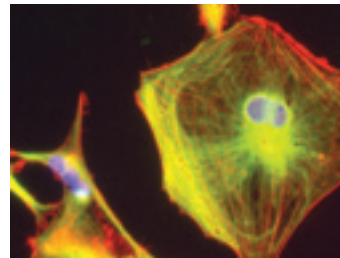
Growth factors are naturally occurring regulatory molecules, which bind to receptors on the cell surface. They stimulate cell and tissue function through influencing cell differentiation by changing their biochemical activity and cellular growth, and regulating their rate of proliferation. Numerous families of growth factors have already been identified and remarkable advancements have been made in understanding the pathways growth factors use to activate cellular proliferation and differentiation.

Medical researchers recognize the important role growth factors play in stem cell therapy and regenerative medicine. Stem cell research has the potential to dramatically change the treatment of human disease and serious injuries by providing a platform for deciphering the secrets surrounding the cellular processes controlling development, aging, and tissue regeneration. Regenerative medicine shows promise for repair of damaged tissues and organs, delivery of safer and more efficient drugs, better disease models, and cures for numerous devastating diseases.

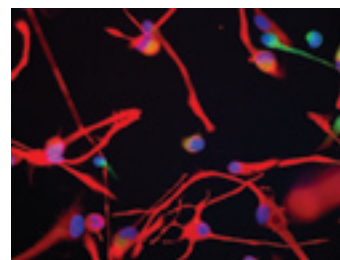
Stem cell treatment could put an end to inefficient disease treatments and lack of organ donations for organ transplants. Much is expected from Embryonic Stem Cell (ESC) research, due to their ability to differentiate into all possible cell types in the body and potentially unlimited capacity for self-renewal. However, no approved medical therapies have been developed using ESC, due to the lack of understanding about these cells and how they are influenced. Once growth factors are added to pluripotent stem cells under certain conditions, they are able to direct differentiation into three different germ layers—endoderm, mesoderm and ectoderm—from which various cell types are derived. Endodermal cells develop into the liver and pancreas, mesodermal cells give rise to muscles and red blood cells, and ectodermal cells become the brain and skin. Tremendous progress has been made in understanding which growth factors manipulate the different lineage pathways. However, complete control of stem cell differentiation from pluripotent to fully specialized cells needs further investigation, since it requires multiple growth factors in defined order and quantity, and at defined time intervals.

A recent advancement in the field of regenerative medicine is the production of induced pluripotent stem (iPS) cells. iPS cells are embryonic-like stem cells, derived from reprogrammed adult cells. The use of iPS cells in place of embryonic stem cells from human embryos provides an avenue for creating an unlimited supply of embryonic-like stem cells generating a tremendous enthusiasm in this field. Induced pluripotent stem cell technology has enormous possibilities for safe treatment of numerous diseases, bypassing the current ethical and political issues of embryonic stem cells. Also, iPS cells allow for personalized medicine as both the nuclear and the mitochondrial DNA matches the donor. Furthermore, using iPS

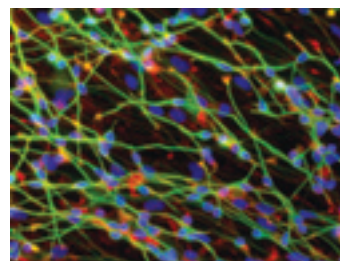
cells would not require any immune suppression, making them a superior choice over donor embryonic stem cells for therapeutic uses. Researchers are daily enhancing their already significant understanding of how growth factors affect both somatic and embryonic stem cell expansion and differentiation. However, they have only begun to explore the effects of growth factors on iPS cells and how they differ, if at all, from embryonic stem cells. Once they can completely control the fate of pluripotent stem cells, which is influenced by a number of cellular signals including growth factors, they will be able to direct these cells, both *in vivo* and *in vitro*, to become the specialized cells that make up all the tissue in the body and enable subsequent use in cell-based therapies, drug development, and disease modeling.



This image shows cells derived from the culture of neural stem cells grown in the presence of EGF (Cat. No. E9644) and LIF (Cat. No. L5283). The cells were expanded in neural stem cell expansion medium (Cat. No. S3194) and then moved to conditions to allow them to differentiate. This photo shows differentiated cells fixed and stained with an antibody for GFAP (an astrocyte marker in green, Cat. No. G9269). Actin is labeled with TRITC phalloidin (Cat. No. P1951) and the nuclei are labeled with DAPI (Cat. No. D8417).



Immortalized cortical cell line in the presence of growth factors bFGF (Cat. No. F0291) and EGF (Cat. No. E9644). Cultures are predominantly GFAP staining astrocytes (red) with a few β -tubulin III staining neurons (green). Counterstaining of cell nuclei with Hoechst dye. Images of human neural stem cells courtesy of ReNeuron Limited, United Kingdom.



This image shows cells derived from the culture of neural stem cells grown in the presence of EGF (Cat. No. E9644) and LIF (Cat. No. L5283). The cells were expanded in neural stem cell expansion medium (Cat. No. S3194) and then moved to conditions to allow them to differentiate. This photo shows differentiated cells fixed and stained with an antibody for β -tubulin III (neural marker in green, Cat. No. T8660). Actin is labeled with TRITC phalloidin (Cat. No. P1951) and the nuclei are labeled with DAPI (Cat. No. D8417).

Growth Factors and Cytokines for Embryonic & Induced Pluripotent Stem Cells

Cat. No.	Product Description	Biological Source	Assay	Cell Culture
A4941-5UG	Activin A	human	>95%, SDS-PAGE	tested
A9975-20UG	ADAM-10	mouse	>90%, SDS-PAGE	-
A9847-25UG	Angiopoietin-2	human	>97%, SDS-PAGE	-
A1229-25UG	Angiopoietin-3	mouse	≥90%, SDS-PAGE	-
A1479-25UG	Angiopoietin-4	human	≥85%, SDS-PAGE	-
B1686-5MG B1686-25MG	BIO	-	≥98%, HPLC	-
B3555-10UG	Bone Morphogenetic Protein 2	human	≥98%, SDS-PAGE and HPLC	tested
B2680-10UG	Bone Morphogenetic Protein 4	human	>95%, SDS-PAGE	tested
B9803-50UG	Bone Morphogenetic Protein 5	human	>95%, SDS-PAGE	tested
B2805-20UG	Bone Morphogenetic Protein 6	human	>95%, SDS-PAGE	tested
B1434-10UG	Bone Morphogenetic Protein 7	human	>95%, SDS-PAGE	tested
B3795-5UG	Brain-derived Neurotrophic Factor	human	≥98%, SDS-PAGE and HPLC	tested
E2278-100UG	E-Cadherin/Fc Chimera	human	≥90%, SDS-PAGE	-
E2153-50UG	E-Cadherin/Fc Chimera	mouse	>90%, SDS-PAGE	-
C4428-.25UN	Cathepsin G	human leukocytes	-	-
C3742-5MG C3742-25MG	Chk2 Inhibitor II	-	≥98%, HPLC	-
E9644-.2MG	Epidermal Growth Factor	human	≥97%, SDS-PAGE	tested
E4127-.1MG E4127-5X.1MG	Epidermal Growth Factor	murine submaxillary gland	-	tested
E1257-.1MG	Epidermal Growth Factor	murine submaxillary gland	-	tested
F8424-25UG	Fibroblast Growth Factor-4	human	≥95%, SDS-PAGE and HPLC	tested
F4537-50UG	Fibroblast Growth Factor-5	human	≥97%, SDS-PAGE and N-terminal analysis	tested
F4662-25UG	Fibroblast Growth Factor-6	human	≥97%, SDS-PAGE and N-terminal analysis	tested
F1168-25UG	Fibroblast Growth Factor-9	human	≥97%, SDS-PAGE	suitable
F8924-25UG	Fibroblast Growth Factor-10	human	>97%, SDS-PAGE	suitable
F3133-10UG F3133-5X10UG	Fibroblast Growth Factor	bovine pituitary	-	tested
F5392-1UG	Fibroblast Growth Factor-Basic	bovine pituitary	~90%, SDS-PAGE and N-terminal analysis	tested
F0291-25UG	Fibroblast Growth Factor-Basic	human	≥97%, SDS-PAGE	tested
F9174-50UG	Fibroblast Growth Factor Receptor-1α (IIIc)/Fc Chimera	human	>90%, SDS-PAGE	-
F9299-50UG	Fibroblast Growth Factor Receptor-1β (IIIc)/Fc Chimera	human	>90%, SDS-PAGE	-
F9549-50UG	Fibroblast Growth Factor Receptor-2α (IIIc)/Fc Chimera	human	>90%, SDS-PAGE	-
F1927-50UG	Fibroblast Growth Factor Receptor 2β (IIIb)/Fc Chimera	mouse	>90%, SDS-PAGE	-
F9924-50UG	Fibroblast Growth Factor Receptor-3α (IIIc)/Fc Chimera	mouse	>90%, SDS-PAGE	-
F8675-50UG	Fibroblast Growth Factor Receptor-4/Fc Chimera	human	>90%, SDS-PAGE	-
L9913-10UG	LYN A	human	≥80%, SDS-PAGE	-
M9195-10UG	Matrix Metalloproteinase-1	human	>95%, SDS-PAGE	-

Cat. No.	Product Description	Biological Source	Assay	Cell Culture
N8898-50UG	Nerve Growth Factor Receptor/Fc Chimera	human	>95%, SDS-PAGE	-
N1905-5UG	Neurotrophin-3	human	>97%, SDS-PAGE	tested
N1780-5UG	Neurotrophin-4	human	≥97%, SDS-PAGE	tested
N6784-50UG	Noggin/Fc Chimera	mouse	>95%, SDS-PAGE	-
N9286-50UG	Notch-1/Fc Chimera	human	≥90%, SDS-PAGE	-
O9635-10UG	Oncostatin M	human	>97%, SDS-PAGE	tested
O1637-25UG	Oncostatin M	mouse	≥97%, SDS-PAGE	tested
O8762-100UG	Oncostatin M Receptor β/Fc Chimera	mouse	>90%, SDS-PAGE	-
O3514-50UG	Osteopontin	bovine milk	-	-
O4264-50UG	Osteopontin	human	≥95%, SDS-PAGE	tested
O2260-50UG	Osteopontin	mouse	>95%, SDS-PAGE	tested
P3075-1G	Phenylarsine oxide	-	≥97%	-
P3075-5G	Platelet-Derived Growth Factor	human platelets	≥95%, SDS-PAGE	tested
P8147-1VL	Platelet-Derived Growth Factor	porcine platelets	≥97%, SDS-PAGE and N-terminal analysis	tested
P8953-5UG	Platelet-Derived Growth Factor-AB	human	≥97%, SDS-PAGE and N-terminal analysis	tested
P3326-10UG	Platelet-Derived Growth Factor-BB	human	≥97%, SDS-PAGE	tested
P3201-10UG	Platelet-Derived Growth Factor-BB	human	≥97%, SDS-PAGE	tested
P4306-10UG	Platelet-Derived Growth Factor-BB	rat	≥97%, SDS-PAGE	tested
P4056-50UG	Platelet-Derived Growth Factor Soluble Receptor α	human	>97%, SDS-PAGE	-
P1985-50UG	Anti-POU5F1 (Oct4)	rabbit	-	-

Cat. No.	Product Description	Biological Source	Assay	Cell Culture
S7439-100UG	L-Selectin/Fc Chimera	mouse	>90%, SDS-PAGE	-
T1566-.1MG	Tie-1/Fc Chimera	human	≥90%, SDS-PAGE	tested
T1077-10UG	Tissue Inhibitor of Metalloproteinase-2	human	>95%, SDS-PAGE	-
T7924-.1MG	Transforming Growth Factor-α	human	≥98%, SDS-PAGE and HPLC	tested
T7039-2UG	Transforming Growth Factor-β1	human	≥98%, SDS-PAGE	tested
T1654-1UG	Transforming Growth Factor-β1	human platelets	≥97%, SDS-PAGE and N-terminal analysis	tested
T5050-1UG	Transforming Growth Factor-β1	porcine platelets	≥97%, SDS-PAGE and N-terminal analysis	tested
T2815-2UG	Transforming Growth Factor-β2	human	≥97%, SDS-PAGE	tested
T5300-1UG	Transforming Growth Factor-β2	porcine platelets	≥97%, SDS-PAGE and N-terminal analysis	tested
T5425-2UG	Transforming Growth Factor-β3	human	≥97%, SDS-PAGE	tested
T3301-25UG	Transforming Growth Factor-β1 Receptor II Soluble Fragment	human	≥97%, SDS-PAGE	-
T4567-.1MG	Transforming Growth Factor-β Soluble Receptor III	human	>97%, SDS-PAGE	-
T8694-100UG	TrkB/Fc Chimera	human	>90%, SDS-PAGE	-
V3513-5UG	Vascular Endothelial Growth Factor 120	mouse	>97%, SDS-PAGE	-
V3388-5UG	Vascular Endothelial Growth Factor 121	human	≥97%, SDS-PAGE	-
V3638-10UG	Vascular Endothelial Growth Factor 164	rat	>95%, SDS-PAGE	-

Growth Factors and Cytokines for Hematopoietic Stem Cells

Cat. No.	Product Description	Biological Source	Assay	Cell Culture
A9975-20UG	ADAM-10	mouse	>90%, SDS-PAGE	-
A6955-50UG	Angiogenin	human	≥97%, SDS-PAGE	tested
A5226-25UG	Angiopoietin-1	human	≥90%, SDS-PAGE	-
B1686-5MG B1686-25MG	BIO	-	≥98%, HPLC	-
B2680-10UG	Bone Morphogenetic Protein 4	human	>95%, SDS-PAGE	tested
B1434-10UG	Bone Morphogenetic Protein 7	human	>95%, SDS-PAGE	tested
C4428-.25UN	Cathepsin G	human leukocytes	-	-
E8403-20UG	Eotaxin-Biotin	mouse	-	-
E9152-25UG	Eotaxin-2	mouse	>95%, SDS-PAGE	-
E8399-25UG	Eotaxin-3	human	>97%, SDS-PAGE	tested
E9644-.2MG	Epidermal Growth Factor	human	≥97%, SDS-PAGE	tested
E4127-.1MG E4127-5X.1MG	Epidermal Growth Factor	murine submaxillary gland	-	tested
E1257-.1MG	Epidermal Growth Factor	murine submaxillary gland	-	tested
F8674-50UG	Fas/Fc Chimera	human	≥97%, SDS-PAGE	tested
F8799-50UG	Fas/Fc Chimera	mouse	>97%, SDS-PAGE	tested
F8424-25UG	Fibroblast Growth Factor-4	human	≥95%, SDS-PAGE and HPLC	tested
F4537-50UG	Fibroblast Growth Factor-5	human	≥97%, SDS-PAGE and N-terminal analysis	tested
F4662-25UG	Fibroblast Growth Factor-6	human	≥97%, SDS-PAGE and N-terminal analysis	tested
F6926-25UG	Fibroblast Growth Factor-8b	mouse	>97%, SDS-PAGE	-
F1802-25UG	Fibroblast Growth Factor-8c	mouse	>97%, SDS-PAGE	-
F1168-25UG	Fibroblast Growth Factor-9	human	≥97%, SDS-PAGE	suitable
F8924-25UG	Fibroblast Growth Factor-10	human	>97%, SDS-PAGE	suitable
F7176-25UG	Fibroblast Growth Factor-17	human	>95%, SDS-PAGE	-
F7301-25UG	Fibroblast Growth Factor-18	human	>95%, SDS-PAGE and HPLC	-
F3133-10UG F3133-5X10UG	Fibroblast Growth Factor	bovine pituitary	-	tested
F5542-25UG	Fibroblast Growth Factor-Acidic	human	≥97%, SDS-PAGE	tested
F5392-1UG	Fibroblast Growth Factor-Basic	bovine pituitary	~90%, SDS-PAGE and N-terminal analysis	tested
F0291-25UG	Fibroblast Growth Factor-Basic	human	≥97%, SDS-PAGE	tested
F5895-.1MG F5895-250UG	Fibroblast Growth Factor Basic Fragment 1-24	bovine	-	-
F9786-1ML F9786-5ML	Fibroblast Growth Factor-Basic Heparin Stabilized	human	-	tested
F9299-50UG	Fibroblast Growth Factor Receptor-1β (IIIc)/Fc Chimera	human	>90%, SDS-PAGE	-
F9924-50UG	Fibroblast Growth Factor Receptor-3α (IIIc)/Fc Chimera	mouse	>90%, SDS-PAGE	-
F8675-50UG	Fibroblast Growth Factor Receptor-4/Fc Chimera	human	>90%, SDS-PAGE	-
F7426-50UG	Flt-3/Fc Chimera	human	>97%, SDS-PAGE	-
F2803-50UG	Flt-3/Fc Chimera	mouse	>95%, SDS-PAGE	-
F3422-5UG	Flt-3/Flk-2 ligand Synonym: FL	human	≥98%, SDS-PAGE and HPLC	suitable

Cat. No.	Product Description	Biological Source	Assay	Cell Culture
F9175-5UG	Flt-3/Flk-2 Ligand	mouse	≥97%, SDS-PAGE	tested
G0407-5UG	Granulocyte Colony-Stimulating Factor	human	≥95%, SDS-PAGE and N-terminal analysis	tested
G8160-5UG	Granulocyte Colony-Stimulating Factor	mouse	>97%, SDS-PAGE	tested
G5035-5UG	Granulocyte-Macrophage Colony-Stimulating Factor	human	≥98%, SDS-PAGE and HPLC	tested
G0282-5UG	Granulocyte-Macrophage Colony-Stimulating Factor	mouse	≥97%, SDS-PAGE	tested
G0792-5UG	Granulocyte-Macrophage Colony-Stimulating Factor	rat	>97%, SDS-PAGE	-
G0657-10UG	GRO α	human	≥97%, SDS-PAGE	tested
G7909-10UG	GRO β	human	≥97%, SDS-PAGE	tested
E4643-50UG	Heparin-Binding EGF-Like Growth Factor	human	≥97%, SDS-PAGE and N-terminal analysis	tested
H5529-50UG	Heregulin- α , EGF Domain	human	≥97%, SDS-PAGE	tested
H7660-50UG	Heregulin- β 1 (EGF Domain)	human	≥98%, SDS-PAGE and HPLC	-
H0786-100UG	Heregulin- β , EGF Domain	human	~80%, SDS-PAGE	-
I2778-2UG	Interleukin-1 α	human	≥97%, SDS-PAGE	tested
I2393-10UG	Interleukin-1 β	rat	≥98%, SDS-PAGE and HPLC	tested
I2644-10UG	Interleukin-2	human	-	tested
I7908-10KU	Interleukin-2	human	≥98%, SDS-PAGE and HPLC	tested
I4144-10UG	Interleukin-3	mouse	≥98%, SDS-PAGE and HPLC	tested
I0406-10UG	Interleukin-6	-	>97%, SDS-PAGE	tested
I3769-50UG	Insulin-like Growth Factor-I	human	≥97%, SDS-PAGE or HPLC	tested
I8779-50UG	Insulin-like Growth Factor-I	mouse	>97%, SDS-PAGE	tested
I3263-1MG	Insulin-like Growth Factor-II Fragment 33-40	-	≥97%, HPLC	-
I5403-25UG	Insulin-Like Growth Factor Binding Protein-2	human	≥95%, SDS-PAGE	tested
I3657-25UG	Insulin-Like Growth Factor Binding Protein-2	mouse	≥95%, SDS-PAGE	tested
I2656-25UG	Insulin-like Growth Factor-I (E3R)	human	>95%, HPLC	-
I2526-50UG	Insulin-like Growth Factor-II	human	≥97%, SDS-PAGE or HPLC	tested
I8904-50UG	Insulin-like Growth Factor-II	human	>97%, SDS-PAGE	-
I8657-1VL	Interferon α	rat	≥95%	tested
I4276-20UG	Interferon- α A	human	≥95%	tested
I8782-1VL	Interferon α A	mouse	≥95%	tested
I4401-100KU	Interferon- α A/D	human	≥95%	tested
I9032-1VL	Interferon β	mouse	≥95%	tested
I8907-1VL	Interferon β	rat	≥95%	tested
I4777-1MG	Interferon- γ	mouse	≥98%, SDS-PAGE and HPLC	tested
I8654-50UG	Interferon- γ	porcine	>97%, SDS-PAGE	tested
I3275-1MG	Interferon- γ	rat	≥97%, SDS-PAGE	tested
I4784-1MU	Interferon	human leukocytes	≥95%	-
I5277-1MG	Interferon- γ Receptor 1	human	>95%, SDS-PAGE	-
I5396-5UG	Interleukin-1 α	mouse	≥97%, SDS-PAGE	tested
I3901-5UG	Interleukin-1 α	rat	≥97%, SDS-PAGE	tested
I4638-1MG	Interleukin-1 β Fragment 163-171	human	≥97%, HPLC	-

Cat. No.	Product Description	Biological Source	Assay	Cell Culture
I9401-5UG	Interleukin-1 β	human	$\geq 98\%$, SDS-PAGE	tested
I5271-5UG	Interleukin-1 β	mouse	$\geq 98\%$, SDS-PAGE and HPLC	tested
I8148-25UG	Interleukin-1 Soluble Receptor, Type II	human	$\geq 97\%$, SDS-PAGE	-
I9780-10UG	Interleukin-2/Fc Chimera (non-lytic)	human	$> 98\%$, SDS-PAGE	-
I9905-10UG	Interleukin-2/Fc Chimera (non-lytic)	mouse	$> 98\%$, SDS-PAGE	-
I0523-20UG	Interleukin-2	mouse	$\geq 97\%$, SDS-PAGE	tested
I0779-5UG	Interleukin-2 Soluble Receptor α	human	$> 97\%$, SDS-PAGE	-
I0904-5UG	Interleukin-2 Soluble Receptor β	human	$> 97\%$, SDS-PAGE	-
I1029-50UG	Interleukin-2 Soluble Receptor γ	human	$> 97\%$, SDS-PAGE	-
I1646-10UG	Interleukin-3	human	$\geq 98\%$, SDS-PAGE and HPLC	tested
I7389-4UG	Interleukin-3	human	$\geq 95\%$, SDS-PAGE	tested
I5273-5UG	Interleukin-5	human	$\geq 97\%$, SDS-PAGE	tested
I1145-5UG	Interleukin-5	mouse	$\geq 97\%$, SDS-PAGE	tested
I3268-10KU	Interleukin-6	human	$\geq 90\%$, SDS-PAGE	tested
I1395-10UG	Interleukin-6	human	$\geq 97\%$, SDS-PAGE	tested
I9646-5UG	Interleukin-6	mouse	$\geq 98\%$, SDS-PAGE and HPLC	tested
I5771-25UG	Interleukin-6 Receptor Soluble Fragment	human	$\geq 97\%$, SDS-PAGE	-
I5896-5UG	Interleukin-7	human	$> 98\%$, SDS-PAGE and HPLC	tested
I4892-5UG	Interleukin-7	mouse	$\geq 97\%$, SDS-PAGE	tested
I1645-10UG	Interleukin-8	human	$\geq 98\%$, SDS-PAGE and HPLC	tested
I2406-5UG	Interleukin-11	human	$> 97\%$, SDS-PAGE	tested
I9279-5UG	Interleukin-11	mouse	$> 97\%$, SDS-PAGE	-
I2276-5UG	Interleukin-12	human	$\geq 97\%$, SDS-PAGE and N-terminal analysis	tested
I8523-10UG	Interleukin-12	mouse	$\geq 97\%$, SDS-PAGE	tested
L5283-10UG	Leukemia Inhibitory Factor	human	$\geq 95\%$, SDS-PAGE	tested
L5158-5UG	Leukemia Inhibitory Factor	mouse	$\geq 95\%$, SDS-PAGE	tested
E4269-.1MG E4269-1MG	LONG [®] EGF	human	-	tested
I1271-.1MG I1271-1MG	LONG [®] R3 IGF-1, Recombinant Analog	human	$\geq 98\%$, HPLC	tested
L9913-10UG	LYN A	human	$\geq 80\%$, SDS-PAGE	-
M6292-10UG	Macrophage Inflammatory Protein-1 α	human	$\geq 97\%$, SDS-PAGE and N-terminal analysis	tested
M6167-10UG	Macrophage Inflammatory Protein-1 α	mouse	$\geq 97\%$, SDS-PAGE and N-terminal analysis	tested
M6417-10UG	Macrophage Inflammatory Protein-1 β	human	$\geq 97\%$, SDS-PAGE and N-terminal analysis	tested
M6542-10UG	Macrophage Inflammatory Protein-1 β	mouse	$\geq 97\%$, SDS-PAGE and N-terminal analysis	tested
M261-25UG	Macrophage Inflammatory Protein-1 γ	mouse	$> 97\%$, SDS-PAGE	tested
M9070-10UG	Matrix Metalloproteinase-2	human	$> 90\%$, SDS-PAGE	-
M9445-10UG	Matrix Metalloproteinase-2	mouse	$> 95\%$, SDS-PAGE	-
M8945-10UG	Matrix Metalloproteinase-9	human	$> 95\%$, SDS-PAGE	-

Cat. No.	Product Description	Biological Source	Assay	Cell Culture
M252-10UG	MIG	human	>97%, SDS-PAGE	tested
M1439-10UG	MIG	mouse	>97%, SDS-PAGE	-
M6667-10UG	Monocyte Chemotactic Protein-1	human	≥97%, SDS-PAGE and N-terminal analysis	tested
M208-10UG	Monocyte Chemotactic Protein-1	rat	>97%, SDS-PAGE	tested
M8543-10UG	Monocyte Chemotactic Protein-3	human	≥97%, SDS-PAGE	tested
M246-25UG	Monocyte Chemotactic Protein-4	human	>97%, SDS-PAGE	tested
M263-25UG	Monocyte Chemotactic Protein-5	mouse	>97%, SDS-PAGE	tested
N8898-50UG	Nerve Growth Factor Receptor/Fc Chimera	human	>95%, SDS-PAGE	-
N9286-50UG	Notch-1/Fc Chimera	rat	≥90%, SDS-PAGE	-
O3514-50UG	Osteopontin	bovine milk	-	-
O4264-50UG	Osteopontin	human	≥95%, SDS-PAGE	tested
O2260-50UG	Osteopontin	mouse	>95%, SDS-PAGE	tested
O8137-100UG	Osteoprotegerin/Fc Chimera	mouse	>95%, SDS-PAGE	-
P8147-1VL	Platelet-Derived Growth Factor	human platelets	≥95%, SDS-PAGE	tested
P8953-5UG	Platelet-Derived Growth Factor	porcine platelets	≥97%, SDS-PAGE and N-terminal analysis	tested
P3076-10UG	Platelet-Derived Growth Factor-AA	human	≥98%, SDS-PAGE and HPLC	tested
P3326-10UG	Platelet-Derived Growth Factor-AB	human	≥97%, SDS-PAGE and N-terminal analysis	tested
P3201-10UG	Platelet-Derived Growth Factor-BB	human	≥97%, SDS-PAGE	tested
P4306-10UG	Platelet-Derived Growth Factor-BB	human	≥97%, SDS-PAGE	tested
P4056-50UG	Platelet-Derived Growth Factor-BB	rat	≥97%, SDS-PAGE	tested
P3618-100UG	Platelet-Derived Growth Factor Receptor β/Fc Chimera	human	>97%, SDS-PAGE	-
P1985-50UG	Platelet-Derived Growth Factor Soluble Receptor α	human	>97%, SDS-PAGE	-
R6267-10UG	RANTES	human	≥97%, SDS-PAGE and N-terminal analysis	tested
R2274-25UG	RANTES	mouse	>95%, SDS-PAGE	tested
S2437-50UG	SCF Soluble Receptor	human	>95%, SDS-PAGE	-
S7439-100UG	L-Selectin/Fc Chimera	mouse	>90%, SDS-PAGE	-
S7901-10UG	Stem Cell Factor	human	>95%, SDS-PAGE	tested
S9915-10UG	Stem Cell Factor	mouse	≥95%, SDS-PAGE and HPLC	tested
S5816-10UG	Stromal Cell-Derived Factor 1α/pre-B Cell Growth Stimulating Factor	mouse	>97%, SDS-PAGE	tested
S190-10UG	Stromal Cell-Derived Factor 1α/pre-B Cell Growth Stimulating Factor	human	>97%, SDS-PAGE	tested
S8406-10UG	Stromal Cell-Derived Factor 1β/pre-B Cell Growth Stimulating Factor	human	>97%, SDS-PAGE	tested
T1568-5UG	Thrombopoietin	human	≥98%, SDS-PAGE and HPLC	-

Cat. No.	Product Description	Biological Source	Assay	Cell Culture
T4184-5UG	Thrombopoietin	mouse	>97%, SDS-PAGE	tested
T1566-.1MG	Tie-1/Fc Chimera	human	≥90%, SDS-PAGE	tested
T1077-10UG	Tissue Inhibitor of Metalloproteinase-2	human	>95%, SDS-PAGE	-
T7924-.1MG	Transforming Growth Factor-α	human	≥98%, SDS-PAGE and HPLC	tested
T7039-2UG	Transforming Growth Factor-β1	human	≥98%, SDS-PAGE	tested
L3408-25UG	Transforming Growth Factor-β1 Latency Associated Peptide	human	≥97%, SDS-PAGE	tested
T5050-1UG	Transforming Growth Factor-β1	porcine platelets	≥97%, SDS-PAGE and N-terminal analysis	tested
T2815-2UG	Transforming Growth Factor-β2	human	≥97%, SDS-PAGE	tested
T5300-1UG	Transforming Growth Factor-β2	porcine platelets	≥97%, SDS-PAGE and N-terminal analysis	tested
T5425-2UG	Transforming Growth Factor-β3	human	≥97%, SDS-PAGE	tested
T4567-.1MG	Transforming Growth Factor-β Soluble Receptor III	human	>97%, SDS-PAGE	-
V3513-5UG	Vascular Endothelial Growth Factor 120	mouse	>97%, SDS-PAGE	-
V3388-5UG	Vascular Endothelial Growth Factor 121	human	≥97%, SDS-PAGE	-
V3638-10UG	Vascular Endothelial Growth Factor 164	rat	>95%, SDS-PAGE	-
V6758-50UG	VEGF Receptor-2 (Flk-1, KDR)/Fc Chimera	human	>90%, SDS-PAGE	-
V1260-50UG	VEGF Receptor-3 (Flt-4)/Fc Chimera	human	>95%, SDS-PAGE	-
V6633-.1MG	VEGF Receptor-3 (Flt-4)/Fc Chimera	mouse	>95%, SDS-PAGE	-

Growth Factors and Cytokines for Mesenchymal Stem Cells

Cat. No.	Product Description	Biological Source	Assay	Cell Culture
A9975-20UG	ADAM-10	mouse	>90%, SDS-PAGE	-
A6955-50UG	Angiogenin	human	≥97%, SDS-PAGE	tested
A9847-25UG	Angiopoietin-2	human	>97%, SDS-PAGE	-
A1229-25UG	Angiopoietin-3	mouse	≥90%, SDS-PAGE	-
A1479-25UG	Angiopoietin-4	human	≥85%, SDS-PAGE	-
B1686-5MG B1686-25MG	BIO	-	≥98%, HPLC	-
B3555-10UG	Bone Morphogenetic Protein 2	human	≥98%, SDS-PAGE and HPLC	tested
B2680-10UG	Bone Morphogenetic Protein 4	human	>95%, SDS-PAGE	tested
B9803-50UG	Bone Morphogenetic Protein 5	human	>95%, SDS-PAGE	tested
B2805-20UG	Bone Morphogenetic Protein 6	human	>95%, SDS-PAGE	tested
B1434-10UG	Bone Morphogenetic Protein 7	human	>95%, SDS-PAGE	tested
E9644-.2MG	Epidermal Growth Factor	human	≥97%, SDS-PAGE	tested
E4127-.1MG E4127-5X.1MG	Epidermal Growth Factor	murine submaxillary gland	-	tested
E1257-.1MG	Epidermal Growth Factor	murine submaxillary gland	-	tested
F5392-1UG	Fibroblast Growth Factor-Basic	bovine pituitary	~90%, SDS-PAGE and N-terminal analysis	tested
F0291-25UG	Fibroblast Growth Factor-Basic	human	≥97%, SDS-PAGE	tested
F5895-.1MG F5895-250UG	Fibroblast Growth Factor Basic Fragment 1-24 bovine	-	-	-
F9299-50UG	Fibroblast Growth Factor Receptor-1β (IIIc)/Fc Chimera	human	>90%, SDS-PAGE	-
F9924-50UG	Fibroblast Growth Factor Receptor-3α (IIIc)/Fc Chimera	mouse	>90%, SDS-PAGE	-
F3422-5UG	Flt-3/Flk-2 ligand	human	≥98%, SDS-PAGE and HPLC	suitable
F9175-5UG	Flt-3/Flk-2 Ligand	mouse	≥97%, SDS-PAGE	tested
G0407-5UG	Granulocyte Colony-Stimulating Factor	human	≥95%, SDS-PAGE and N-terminal analysis	tested
G8160-5UG	Granulocyte Colony-Stimulating Factor	mouse	>97%, SDS-PAGE	tested
G5035-5UG	Granulocyte-Macrophage Colony-Stimulating Factor	human	≥98%, SDS-PAGE and HPLC	tested
G0282-5UG	Granulocyte-Macrophage Colony-Stimulating Factor	mouse	≥97%, SDS-PAGE	tested
I3265-.1MG	Interferon-γ	human	≥98%, SDS-PAGE and HPLC	tested
I4777-.1MG	Interferon-γ	mouse	≥98%, SDS-PAGE and HPLC	tested
I8654-50UG	Interferon-γ	porcine	>97%, SDS-PAGE	tested
I3275-.1MG	Interferon-γ	rat	≥97%, SDS-PAGE	tested
E4269-.1MG E4269-1MG	LONG® EGF	human	-	tested
M9195-10UG	Matrix Metalloproteinase-1	human	>95%, SDS-PAGE	-
M9070-10UG	Matrix Metalloproteinase-2	human	>90%, SDS-PAGE	-
M9445-10UG	Matrix Metalloproteinase-2	mouse	>95%, SDS-PAGE	-
M8945-10UG	Matrix Metalloproteinase-9	human	>95%, SDS-PAGE	-
N8898-50UG	Nerve Growth Factor Receptor/Fc Chimera	human	>95%, SDS-PAGE	-
O3514-50UG	Osteopontin	bovine milk	-	-
O4264-50UG	Osteopontin	human	≥95%, SDS-PAGE	tested

Cat. No.	Product Description	Biological Source	Assay	Cell Culture
O2260-50UG	Osteopontin	mouse	>95%, SDS-PAGE	tested
P3075-1G P3075-5G	Phenylarsine oxide	-	≥97%	-
P8147-1VL	Platelet-Derived Growth Factor	human platelets	≥95%, SDS-PAGE	tested
P8953-5UG	Platelet-Derived Growth Factor	porcine platelets	≥97%, SDS-PAGE and N-terminal analysis	tested
P3326-10UG	Platelet-Derived Growth Factor-AB	human	≥97%, SDS-PAGE and N-terminal analysis	tested
P3201-10UG	Platelet-Derived Growth Factor-BB	human	≥97%, SDS-PAGE	tested
P4306-10UG	Platelet-Derived Growth Factor-BB	human	≥97%, SDS-PAGE	tested
P4056-50UG	Platelet-Derived Growth Factor-BB	rat	≥97%, SDS-PAGE	tested
P1985-50UG	Platelet-Derived Growth Factor Soluble Receptor α	human	>97%, SDS-PAGE	-
S5816-10UG	Stromal Cell-Derived Factor 1α/pre-B Cell Growth Stimulating Factor	mouse	>97%, SDS-PAGE	tested
S190-10UG	Stromal Cell-Derived Factor 1α/pre-B Cell Growth Stimulating Factor	human	>97%, SDS-PAGE	tested
S8406-10UG	Stromal Cell-Derived Factor 1β/pre-B Cell Growth Stimulating Factor	human	>97%, SDS-PAGE	tested
T1077-10UG	Tissue Inhibitor of Metalloproteinase-2	human	>95%, SDS-PAGE	-
T7924-.1MG	Transforming Growth Factor-α	human	≥98%, SDS-PAGE and HPLC	tested
T7039-2UG	Transforming Growth Factor-β1	human	≥98%, SDS-PAGE	tested
T1654-1UG	Transforming Growth Factor-β1	human platelets	≥97%, SDS-PAGE and N-terminal analysis	tested
L3408-25UG	Transforming Growth Factor-β1 Latency Associated Peptide	human	≥97%, SDS-PAGE	tested
T5050-1UG	Transforming Growth Factor-β1	porcine platelets	≥97%, SDS-PAGE and N-terminal analysis	tested
T2815-2UG	Transforming Growth Factor-β2	human	≥97%, SDS-PAGE	tested
T5300-1UG	Transforming Growth Factor-β2	porcine platelets	≥97%, SDS-PAGE and N-terminal analysis	tested
T5425-2UG	Transforming Growth Factor-β3	human	≥97%, SDS-PAGE	tested
T3301-25UG	Transforming Growth Factor-β1 Receptor II Soluble Fragment	human	≥97%, SDS-PAGE	-
T4567-.1MG	Transforming Growth Factor-β Soluble Receptor III	human	>97%, SDS-PAGE	-
V3513-5UG	Vascular Endothelial Growth Factor 120	mouse	>97%, SDS-PAGE	-

Growth Factors and Cytokines for Neural Stem Cells

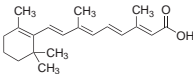
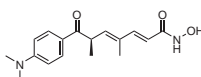
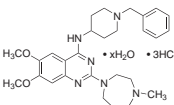
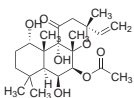
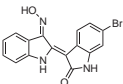
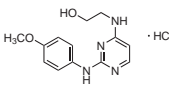
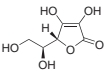
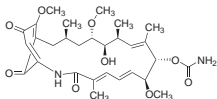
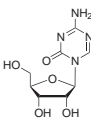
Cat. No.	Product Description	Biological Source	Assay	Cell Culture
A9975-20UG	ADAM-10	mouse	>90%, SDS-PAGE	-
B3555-10UG	Bone Morphogenetic Protein 2	human	≥98%, SDS-PAGE and HPLC	tested
B2680-10UG	Bone Morphogenetic Protein 4	human	>95%, SDS-PAGE	tested
B9803-50UG	Bone Morphogenetic Protein 5	human	>95%, SDS-PAGE	tested
B2805-20UG	Bone Morphogenetic Protein 6	human	>95%, SDS-PAGE	tested
C3742-5MG C3742-25MG	Chk2 Inhibitor II	-	≥98%, HPLC	-
E9644-2MG	Epidermal Growth Factor	human	≥97%, SDS-PAGE	tested
F8674-50UG	Fas/Fc Chimera	human	≥97%, SDS-PAGE	tested
F0291-25UG	Fibroblast Growth Factor-Basic	human	≥97%, SDS-PAGE	tested
F3422-5UG	Flt-3/Flk-2 ligand	human	≥98%, SDS-PAGE and HPLC	suitable
F9175-5UG	Flt-3/Flk-2 Ligand	mouse	≥97%, SDS-PAGE	tested
G0407-5UG	Granulocyte Colony-Stimulating Factor	human	≥95%, SDS-PAGE and N-terminal analysis	tested
G5035-5UG	Granulocyte-Macrophage Colony-Stimulating Factor	human	≥98%, SDS-PAGE and HPLC	tested
G0282-5UG	Granulocyte-Macrophage Colony-Stimulating Factor	mouse	≥97%, SDS-PAGE	tested
G7909-10UG	GROβ	human	≥97%, SDS-PAGE	tested
H0786-100UG	Heregulin-β, EGF Domain	human	~80%, SDS-PAGE	-
I2393-10UG	Interleukin-1β	rat	≥98%, SDS-PAGE and HPLC	tested
I2644-10UG	Interleukin-2	human	-	tested
I4144-10UG	Interleukin-3	mouse	≥98%, SDS-PAGE and HPLC	tested
I2656-25UG	Insulin-like Growth Factor-I (E3R)	human	>95%, HPLC	-
I2526-50UG	Insulin-like Growth Factor-II	human	≥97%, SDS-PAGE or HPLC	tested
I4401-100KU	Interferon-αA/D	human	≥95%	tested
I4151-100KU	Interferon β 1a	human	≥95% (one N-glycosylation site)	tested
I5396-5UG	Interleukin-1α	mouse	≥97%, SDS-PAGE	tested
I3901-5UG	Interleukin-1α	rat	≥97%, SDS-PAGE	tested
I4638-1MG	Interleukin-1β Fragment 163-171	human	≥97%, HPLC	-
I9905-10UG	Interleukin-2/Fc Chimera (non-lytic)	mouse	>98%, SDS-PAGE	-
I2406-5UG	Interleukin-11	human	>97%, SDS-PAGE	tested
M6417-10UG	Macrophage Inflammatory Protein-1β	human	≥97%, SDS-PAGE and N-terminal analysis	tested
M9195-10UG	Matrix Metalloproteinase-1	human	>95%, SDS-PAGE	-
M9445-10UG	Matrix Metalloproteinase-2	mouse	>95%, SDS-PAGE	-
M6667-10UG	Monocyte Chemotactic Protein-1	human	≥97%, SDS-PAGE and N-terminal analysis	tested
N8133-.1MG	Nerve Growth Factor	<i>Vipera lebetina</i> venom	-	tested
N0513-.1MG	Nerve Growth Factor-7S	murine submaxillary gland	-	tested
N6009-10UG	Nerve Growth Factor-2.5S	murine submaxillary gland	-	tested
N8898-50UG	Nerve Growth Factor Receptor/Fc Chimera	human	>95%, SDS-PAGE	-
N1905-5UG	Neurotrophin-3	human	>97%, SDS-PAGE	tested
N2513-.1MG	NGF-β	rat	≥97%, SDS-PAGE	tested

Cat. No.	Product Description	Biological Source	Assay	Cell Culture
N6784-50UG	Noggin/Fc Chimera	mouse	>95%, SDS-PAGE	-
P3076-10UG	Platelet-Derived Growth Factor-AA	human	≥98%, SDS-PAGE and HPLC	tested
P3618-100UG	Platelet-Derived Growth Factor Receptor β/Fc Chimera	human	>97%, SDS-PAGE	-
R6267-10UG	RANTES	human	≥97%, SDS-PAGE and N-terminal analysis	tested
R2274-25UG	RANTES	mouse	>95%, SDS-PAGE	tested
S2437-50UG	SCF Soluble Receptor	human	>95%, SDS-PAGE	-
S7439-100UG	L-Selectin/Fc Chimera	mouse	>90%, SDS-PAGE	-
S7901-10UG	Stem Cell Factor	human	>95%, SDS-PAGE	tested
S9915-10UG	Stem Cell Factor	mouse	≥95%, SDS-PAGE and HPLC	tested
L3408-25UG	Transforming Growth Factor-β1 Latency Associated Peptide	human	≥97%, SDS-PAGE	tested
T2815-2UG	Transforming Growth Factor-β2	human	≥97%, SDS-PAGE	tested
V3513-5UG	Vascular Endothelial Growth Factor 120	mouse	>97%, SDS-PAGE	-
V6758-50UG	VEGF Receptor-2 (Flk-1, KDR)/Fc Chimera	human	>90%, SDS-PAGE	-
V6633-1MG	VEGF Receptor-3 (Flt-4)/Fc Chimera	mouse	>95%, SDS-PAGE	-

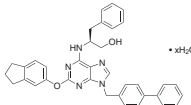
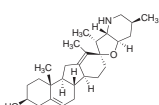

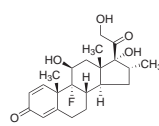
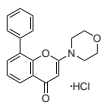
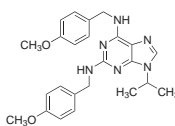
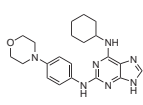
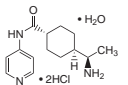
Small Molecules for Stem Cell Biology

Chemistry and biology are converging to transform the study of cellular processes and mechanisms of disease. As the understanding of cell fate determination has grown, so has the desire to manipulate

and transform stem cell phenotypes using chemical tools. Sigma® is committed to offering the newest and most useful bioactive small molecules with activities that influence stem cell fate.

Ordering Information			
Structure	Cat. No.	Molecule Name	Stem Cell-related activity
	R2625	All-trans retinoic acid	Induces stem cell differentiation
	T8552	Trichostatin A	Histone deacetylase inhibitor
	B9311	BIX 01294	Histone methyltransferase inhibitor
	F6886	Forskolin	Adenylyl cyclase activator
	B1686	BIO	Maintains undifferentiated state in mouse ES cells
	C4866	Cardiogenol C	Cardiomyogenesis inducer in embryonic stem cells
	A2218	Ascorbic acid	Induces stem cell differentiation
	G3381	Geldanamycin	HSP90 inhibitor
	A2385	5-Azacytidine	Induces stem cell differentiation

Small Molecules for Stem Cell Biology continued

Ordering Information			
Structure	Cat. No.	Molecule Name	Stem Cell-related activity
	Q4972	QS11	ARFGAP1 inhibitor; activates Wnt/ β -catenin signaling
	C4116	Cyclopamine	Hedgehog signaling pathway inhibitor
	D0160	16,16-Dimethyl prostaglandin E ₂	Signaling molecule
	D1756	Dexamethasone	Induces stem cell differentiation
	L9908	LY-294,002	Specific cell permeable phosphatidylinositol 3-kinase inhibitor
	M3191	Myoseverin	Reversible inhibitor of tubulin polymerization
	R3904	Reversine	Reverses differentiation toward multipotency in some cell types
	Y0503	Y-27632	ATP-competitive ROCK inhibitor



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