

New products

ANTIBODIES, ASSAYS, SMALL MOLECULES, INHIBITORS, AND PROTEINS

Signaling

Immunology

Neuroscience

Cancer

Stem Cell

Epigenetics &
Gene Regulation

Merck Millipore—with the expertise of Calbiochem®, Chemicon®, and Upstate®

Conjugated flow cytometry antibodies: CD markers and immune signaling proteins

Choose from Merck Millipore's growing portfolio of over 1500 conjugated antibodies to your favorite CD markers and flow-validated antibodies for immune signaling protein targets, such as CD44, CD11b, and PD-1. With the reliability and quality of Upstate®, Chemicon® and Calbiochem®, Merck Millipore's conjugated antibodies validated for flow cytometry are available in multiple colors, to enable you to unequivocally discriminate immune cell subtypes:

- FITC
- PE-Cy7
- PE
- APC-Cy7
- APC
- PerCP-Cy5.5
- PE-Cy5
- Violet450

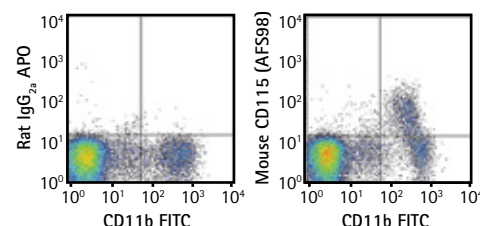
All of our flow-validated antibodies come with our 100% performance and satisfaction guarantee.

Featured conjugated flow cytometry antibodies:

Anti-CD115 (c-fms) (mouse), APC, clone AFS98 (Cat. No. MABF507)

Recently published data indicate that CD115 may be a target for cancer immunotherapy—administration of a blocking antibody improved survival of a mouse breast cancer model of bone metastasis¹. CD115 is a cell-surface receptor for CSF1 and IL-34 and plays an essential role in the regulation of survival, proliferation and differentiation of hematopoietic precursor cells.

Merck Millipore's newly released anti-mouse CD115 (c-fms) APC-conjugated monoclonal antibody specifically detects CD115 (c-fms) in mouse cells via flow cytometry analysis.

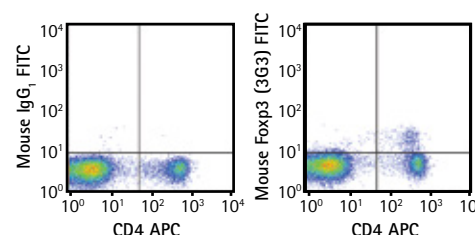


C57Bl/6 peripheral blood cells were stained with FITC Anti-Mouse CD11b and either anti-CD115 (c-fms) (mouse), APC, clone AFS98 (Cat. No. MABF507, right panel) or Rat IgG_{2a}, APC, isotype control (left panel).

Anti-Foxp3 (mouse), FITC, clone 3G3 (Cat. No. MABF731)

Foxp3 is a transcription factor and master regulator in the development and function of regulatory T cells. Specifically, because Foxp3-expressing Treg cells can suppress inflammation, defects in Foxp3 are correlated with rheumatoid arthritis and other autoimmune disease².

Merck Millipore's newly released anti-mouse Foxp3 FITC-conjugated monoclonal antibody is a specifically detects Foxp3 in mouse immune cells via flow cytometry analysis.



C57Bl/6 splenocytes were stained with APC Anti-Mouse CD4, followed by intracellular staining with either anti-Foxp3 (mouse), FITC, clone 3G3 (Cat. No. MABF731, right panel) or Mouse IgG₁, FITC, isotype control (left panel).

1. Fend L et al. Therapeutic effects of anti-CD115 monoclonal antibody in mouse cancer models through dual inhibition of tumor-associated macrophages and osteoclasts. PLoS One. 2013 Sep 3;8(9):e73310.
2. Nistala K, Wedderburn LR. Th17 and regulatory T cells: rebalancing pro- and anti-inflammatory forces in autoimmune arthritis. Rheumatology. 2009 Jun;48(6):602-6.



Consider a Partnership with Merck Millipore

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LEGEND

Species: Hu=Human, Ms=Mouse, Rt=Rat, Bov=Bovine, Chk=Chicken, Mky=Monkey, Por=Porcine, Rb=Rabbit, Can=Canine

Applications: FC=Flow Cytometry, IC=Immunocytochemistry, IHC=Immunohistochemistry, IHC(P)=Immunohistochemistry (Paraffin), IF=Immunofluorescence, IP=Immunoprecipitation, WB=Western Blotting, ChIP=Chromatin IP, EIA=Enzyme Immunoassay, MeDIP=Methylated DNA IP, ELISA=Enzyme Immunoassay, DB=Dot Blot, PIA=Peptide Inhibition Assay, CC=Cell Culture, AA=Activity Assay, MPX=Multiplexing, Inhib=Inhibition, Neut=Neutralizing



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For publications on using these small molecules, visit: www.merck4biosciences.com

Inflammation & Immunology

Description	Host	Species Reactivity	Key Applications	Cat. No.
Antibodies				
Anti-CAMK4, clone 8C5B8	Mouse	Hu	WB, IHC, IF, EIA	MABF505
Anti-CD115 (c-fms) (mouse), APC, clone AFS98	Rat	Ms	FC	MABF506
Anti-CD115 (c-fms) (mouse), PE, clone AFS98	Rat	Ms	FC, WB	MABF508
Anti-CD117 (c-Kit) (mouse), APC, clone ACK2	Rat	Ms	FC	MABF510
Anti-CD117 (c-kit) (mouse), PE, clone ACK2	Rat	Ms	IHC, IC, FC	MABF361
Anti-CD11b (human/mouse), APC-Cy7, clone M1/70	Rat	Hu, Ms	IP, IHC, FC, IF	MABF512
Anti-CD11b (human/mouse), Biotin, clone M1/70	Rat	Hu, Ms	IP, IHC, FC, IF	MABF363
Anti-CD11b (human/mouse), PE-Cy5, clone M1/70	Rat	Hu, Ms	IP, IHC, FC, IF	MABF515
Anti-CD11b (human/mouse), PerCP-Cy5.5, clone M1/70	Rat	Hu, Ms	IP, IHC, FC, IF	MABF517
Anti-CD11b (human/mouse), violetFluor™ 450, clone M1/70	Rat	Hu, Ms	IP, IHC, FC, IF	MABF518
Anti-CD11c (human), PE, clone 3.9	Mouse	Hu	IP, IF, FC	MABF522
Anti-CD11c (human), PE-Cy7, clone 3.9	Mouse	Hu	IP, IF, FC	MABF523
Anti-CD11c (mouse), APC-Cy7, clone N418	Armenian Hamster	Ms	IP, IHC, IF, FC	MABF527
Anti-CD11c (mouse), Biotin, clone N418	Armenian Hamster	Ms	IP, IHC, IF, FC	MABF373
Anti-CD11c (mouse), FITC, clone N418	Armenian Hamster	Ms	IP, IHC, IF, FC	MABF374
Anti-CD11c (mouse), PE, clone N418	Armenian Hamster	Ms	IP, IHC, IF, FC	MABF375
Anti-CD11c (mouse), PE-Cy7, clone N418	Armenian Hamster	Ms	IP, IHC, IF, FC	MABF376
Anti-CD11c (mouse), PerCP-Cy5.5, clone N418	Armenian Hamster	Ms	IP, IHC, IF, FC	MABF377
Anti-CD11c (mouse), violetFluor™ 450, clone N418	Armenian Hamster	Ms	IP, IHC, IF, FC	MABF524
Anti-CD127 (IL-7Ra) (human), PE, clone A7R34	Mouse	Hu	FC	MABF543
Anti-CD127 (IL-7Ra) (mouse), APC, clone A7R34	Rat	Ms	IP, FC, IHC	MABF535
Anti-CD127 (IL-7Ra) (mouse), APC, clone R34-34	Mouse	Hu	FC	MABF542
Anti-CD127 (IL-7Ra) (mouse), Biotin, clone A7R34	Rat	Ms	IP, FC, IHC	MABF379
Anti-CD127 (IL-7Ra) (mouse), FITC, clone A7R34	Rat	Ms	IP, FC, IHC, FC	MABF538
Anti-CD127 (IL-7Ra) (mouse), PE, clone A7R34	Rat	Ms	IP, FC, IHC, FC	MABF539
Anti-CD127 (IL-7Ra) (mouse), PE-Cy7, clone A7R34	Rat	Ms	IP, IHC, IF, FC	MABF382
Anti-CD127 (IL-7Ra) (mouse), PerCP-Cy5.5, clone A7R34	Rat	Ms	IP, IHC, IF, FC	MABF383
Anti-CD152 (CTLA-4) (mouse), APC, clone UC10-4F10-11	Armenian Hamster	Ms	FC	MABF389
Anti-CD152 (CTLA-4) (mouse), PE, clone UC10-4F10-11	Armenian Hamster	Ms	FC	MABF390
Anti-CD25 (human), PE, clone BC96	Mouse	Hu	FC	MABF546
Anti-CD25 (human), PE-Cy7, clone BC96	Mouse	Hu	FC	MABF547
Anti-CD25 (mouse), PE-Cy7, clone PC61.5	Rat	Ms	IP, IHC, FC	MABF397
Anti-CD25 (mouse), PerCP-Cy5.5, clone PC61.5	Rat	Ms	IP, IHC, FC	MABF398
Anti-CD27 (human), APC-Cy7, clone O323	Mouse	Hu	FC	MABF552
Anti-CD27 (human), PE, clone O323	Mouse	Hu	FC	MABF553
Anti-CD27 (human), PE-Cy7, clone O323	Mouse	Hu	FC	MABF402
Anti-CD274 (PD-L1) (mouse), PE, clone 10F-9G2	Rat	Ms	FC	MABF404
Anti-CD279 (PD-1) (mouse), PE, clone J43.1	Armenian Hamster	Ms	IP, IHC, FC	MABF406
Anti-CD28 (human), FITC, clone CD28.2	Mouse	Hu	IP, IHC, FC	MABF411
Anti-CD28 (human), PE, clone CD28.2	Mouse	Hu	IP, IHC, FC	MABF409
Anti-CD28 (human), PE-Cy7, clone CD28.2	Mouse	Hu	IP, IHC, FC	MABF410
Anti-CD4 (human), APC-Cy7, clone RPA-T4	Mouse	Hu	IP, IHC, FC	MABF422
Anti-CD4 (human), PE, clone OKT4	Mouse	Hu	FC	MABF573
Anti-CD4 (human), PE-Cy7, clone RPA-T4	Mouse	Hu	IP, IHC, FC	MABF421

Inflammation & Immunology (continued)

Description	Host	Species Reactivity	Key Applications	Cat. No.
Antibodies (continued)				
Anti-CD4 (human), PerCP-Cy5.5, clone OKT4	Mouse	Hu	FC, IC, IHC, IP, WB	MABF418
Anti-CD4 (mouse), APC-Cy7, clone RM4-5	Rat	Ms	IP, IHC, IF, FC	MABF420
Anti-CD4 (mouse), FITC, clone GK1.5	Rat	Ms	IP, IHC, FC	MABF569
Anti-CD4 (mouse), PE-Cy7, clone GK1.5	Rat	Ms	IP, IHC, FC	MABF414
Anti-CD4 (mouse), violetFluor™ 450, clone GK1.5	Rat	Ms	IP, IHC, FC	MABF567
Anti-CD4 (mouse), violetFluor™ 450, clone RM4-5	Rat	Ms	IP, IHC, IF, FC	MABF575
Anti-CD44 (human/mouse), APC, clone IM7	Rat	Hu, Ms	WB, IP, IHC, FC	MABF423
Anti-CD44 (human/mouse), APC-Cy7, clone IM7	Rat	Hu, Ms	WB, IP, IHC, FC	MABF424
Anti-CD44 (human/mouse), PE-Cy5, clone IM7	Rat	Hu, Ms	FC, IHC, IP, WB	MABF425
Anti-CD44 (human/mouse), PE-Cy7, clone IM7	Rat	Hu, Ms	WB, IP, IHC, FC	MABF426
Anti-CD44 (human/mouse), PerCP-Cy5.5, clone IM7	Rat	Hu, Ms	FC, IHC, IP, WB	MABF427
Anti-CD45.1 (mouse), APC, clone A20	Mouse	Ms	IP, IHC, FC	MABF428
Anti-CD45.1 (mouse), APC-Cy7, clone A20	Mouse	Ms	IP, IHC, FC	MABF590
Anti-CD45.1 (mouse), FITC, clone A20	Mouse	Ms	IP, IHC, FC	MABF429
Anti-CD45.1 (mouse), PE, clone A20	Mouse	Ms	IP, IHC, FC	MABF430
Anti-CD45.1 (mouse), PE-Cy7, clone A20	Mouse	Ms	IP, IHC, FC	MABF434
Anti-CD45.1 (mouse), PerCP-Cy5.5, clone A20	Mouse	Ms	IP, IHC, FC	MABF431
Anti-CD45.2 (mouse), APC, clone 104	Mouse	Ms	IP, FC, IC	MABF435
Anti-CD45.2 (mouse), APC-Cy7, clone 104	Mouse	Ms	IP, FC, IC	MABF436
Anti-CD45.2 (mouse), FITC, clone 104	Mouse	Ms	IP, FC, IC, IF	MABF437
Anti-CD45.2 (mouse), PE, clone 104	Mouse	Ms	IP, FC, IC, IF	MABF438
Anti-CD45.2 (mouse), PE-Cy7, clone 104	Mouse	Ms	IP, FC, IC	MABF439
Anti-CD45.2 (mouse), PerCP-Cy5.5, clone 104	Mouse	Ms	IP, FC, IC	MABF440
Anti-CD45.2 (mouse), violetFluor™ 450, clone 104	Mouse	Ms	IP, FC, IC	MABF592
Anti-CD45R (B220) (human/mouse), Biotin, clone RA3-6B2	Rat	Hu, Ms	FC	MABF442
Anti-CD45R (B220) (human/mouse), FITC, clone RA3-6B2	Rat	Hu, Ms	FC	MABF447
Anti-CD45R (B220) (human/mouse), violetFluor™ 450, clone RA3-6B2	Rat	Hu, Ms	FC, IHC, IF, IP, WB	MABF606
Anti-CD45RA (human), PE-Cy7, clone HI100	Mouse	Hu	FC, IHC, WB	MABF448
Anti-CD45RA (human), PerCP-Cy5.5, clone HI100	Mouse	Hu	FC, IHC, WB	MABF449
Anti-CD54 (ICAM-1) (human), APC, clone 15.2	Mouse	Hu	WB, IHC, FC	MABF711
Anti-CD62L (L-Selectin) (mouse), APC, clone MEL-14	Rat	Ms	IP, IHC, FC	MABF450
Anti-CD62L (L-Selectin) (mouse), PE, clone MEL-14	Rat	Ms	IHC, IP, FC	MABF451
Anti-CD62L (L-Selectin) (mouse), PE-Cy7, clone MEL-14	Rat	Ms	IP, IHC, FC	MABF452
Anti-CD80 (B7-1) (mouse), PE, clone 16-10A1	Armenian Hamster	Ms	IP, IHC, IF, FC	MABF455
Anti-CD86 (B7-2) (human), PE, clone IT2.2	Mouse	Hu	IHC, IP, FC	MABF459
Anti-CD86 (B7-2) (mouse), APC, clone GL-1	Rat	Ms	IHC, IF, FC	MABF456
Anti-CD86 (B7-2) (mouse), PE, clone GL-1	Rat	Ms	IHC, IF, FC	MABF726
Anti-CD90.2 (mouse), APC, clone 30-H12	Rat	Ms	FC	MABF461
Anti-CD90.2 (mouse), PE-Cy7, clone 30-H12	Rat	Ms	FC	MABF460
Anti-Early B-cell factor (EBF1)	Rabbit	Ms	WB, ChIP	ABE1294
Anti-Foxp3 (mouse), APC, clone 3G3	Mouse	Ms	FC	MABF462
Anti-Foxp3 (mouse), FITC, clone 3G3	Mouse	Ms	FC	MABF463
Anti-Foxp3 (mouse), PE, clone 3G3	Mouse	Ms	FC	MABF464
Anti-HAVcr-1	Rabbit	Hu	WB, FC	ABF28
Anti-HLA-C, clone DT9	Mouse	Hu	FC, IP	MABF233
Anti-IGHA1, clone 60099-1	Mouse	Hu	WB, IHC	MABF206
Anti-IL-34, clone 1D12	Mouse	Hu	FC, IF	MABT493

LEGEND

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PUBLICATION HIGHLIGHT

Anti-HLA-C Mouse Monoclonal Antibody

(Cat. No. MABF233)

Merck Millipore's newly released Anti-HLA-C mouse monoclonal antibody (Cat. No. MABF233) has recently been used to reveal key correlation between human leukocyte antigen C (HLA-C) expression and HIV. Published in Science, this report titled "Influence of HLA-C Expression level on HIV control"* was generated by a diverse team of multinational researchers representing hospitals, universities, private foundations, and Microsoft Corporation. They discovered that higher HLA-C expression was correlated with increased control of the HIV viral load in the body, as a result of enhanced cytotoxic T lymphocyte-mediated immune response. The authors used the mouse monoclonal clone DT9 anti-HLA-C antibody to detect and measure HLA-C levels for diverse European and African American populations. The effect of HLA-C expression levels on the immune system raised the possibility of HLA-C affecting the immunity-mediated progression of other human diseases. The researchers found high HLA-C expression was associated with increased incidence of Crohn's disease, an autoimmune disease mediated in part by an imbalance in proinflammatory and anti-inflammatory immune cell activity.

* Prokunina-Olsson L et al. Nat Genet. 2013 Feb;45(2):164-71.

PUBLICATION HIGHLIGHT

Anti-Interferon λ 4 mouse monoclonal antibody

(Cat. No. MABF227)

Merck Millipore's new anti-Interferon λ 4 mouse monoclonal antibody (Cat. No. MABF227) has recently been published in a report of a new discovery of a new interferon gene associated with Hepatitis C clearance.

In the Nature Genetics paper entitled "A variant upstream of IFNL3 (IL28B) creating a new interferon gene IFNL4 is associated with impaired clearance of hepatitis C virus"

L. Prokunina-Olsson and colleagues at the National Cancer Institute performed RNA sequencing in a primary hepatocyte model of hepatitis C virus (HCV) infection. Near the region encoding interferon λ -like protein 3 (IFNL3), the authors discovered a new, transiently induced genetic locus containing a frameshift variant that was strongly linked to another genetic marker associated with HCV clearance. The variant-encoded gene, designated IFNL4, was detected with the clone 4G1 anti-IFNL4 antibody, enabling studies of downstream signaling and clinical implications.

* Prokunina-Olsson L et al. Nat Genet. 2013 Feb;45(2):164-71.

LEGEND

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Antibodies (continued)				
Anti-Interferon Lambda 4, clone 4G1	Mouse	Hu	WB, IHC, IC	MABF227
Anti-KLRG1 (mouse), APC, clone 2F1	Syrian Hamster	Ms	IP, FC	MABF465
Anti-KLRG1 (mouse), APC, clone 2F1	Syrian Hamster	Ms	IP, FC	MABF733
Anti-KLRG1 (mouse), FITC, clone 2F1	Syrian Hamster	Ms	IP, FC	MABF468
Anti-KLRG1 (mouse), FITC, clone 2F1	Syrian Hamster	Ms	IP, FC	MABF735
Anti-KLRG1 (mouse), PE, clone 2F1	Syrian Hamster	Ms	IP, FC	MABF466
Anti-KLRG1 (mouse), PE, clone 2F1	Syrian Hamster	Ms	IP, FC	MABF734
Anti-LST1, clone 7E2	Rat	Hu	WB	MABF242
Anti-Ly-6G (Gr-1) (mouse), PE, clone RB6-8C5	Rat	Ms	IHC, FC	MABF472
Anti-Ly-6G (Gr-1) (mouse), PE, clone RB6-8C5	Rat	Ms	IHC, FC	MABF739
Anti-Ly-6G (Gr-1) (mouse), PE-Cy7, clone RB6-8C5	Rat	Ms	IHC, FC, IP	MABF473
Anti-Ly-6G (Gr-1) (mouse), PE-Cy7, clone RB6-8C5	Rat	Ms	IHC, FC, IP	MABF740
Anti-Ly-6G (mouse), APC, clone 1A8	Rat	Ms	FC	MABF469
Anti-Ly-6G (mouse), APC, clone 1A8	Rat	Ms	FC	MABF736
Anti-Ly-6G (mouse), FITC, clone 1A8	Rat	Ms	FC	MABF470
Anti-Ly-6G (mouse), FITC, clone 1A8	Rat	Ms	FC	MABF737
Anti-Ly-6G (mouse), PerCP-Cy5.5, clone 1A8	Rat	Ms	FC	MABF471
Anti-Ly-6G (mouse), PerCP-Cy5.5, clone 1A8	Rat	Ms	FC	MABF738
Anti-mA20/TNFAIP3, clone 37	Rat	Ms	FC	MABF220
Anti-Microsialin/CD68, clone 9	Rat	Ms	FC	MABF216
Anti-NOD1/CARD4, clone 021	Mouse	Hu	WB, FC	MABF215
Anti-PD-L1/CD274	Rabbit	Hu	WB, FC	ABF133
Anti-PDL-1/CD274, clone 3F2.1	Mouse	Hu	WB, IHC	MABC290
Anti-phospho TIE2/TEK (Tyr992)	Rabbit	Hu	WB, IP, PIA	ABF131
Anti-RNASET2	Rabbit	Hu	WB	ABF293
Anti-S100A8, clone 1F8 (Azide Free)	Mouse	Hu	WB, EIA	MABF296
Anti-S100A9, clone 2A5 (Azide Free)	Rat	Hu, Ms	WB, AA	MABF290
Anti-SLFN11, clone 4G9	Mouse	Hu	WB, IP	MABF248
Anti-TSLP	Rabbit	Hu	WB, IHC(P)	ABF113
Anti- β -2 Microglobulin, canine	Rabbit	Can	WB, IHC(P)	ABF129

Proteins & Enzymes	
HumanKine® IL-1 β , Human Recombinant Xeno-Free	GF418-MG
HumanKine® IL-6, Human Recombinant Xeno-Free	GF430-MG
HumanKine® TNF α , Human Recombinant Xeno-Free	GF442-MG
IL-6, Human Recombinant Animal Free	GF338

Description	Details	Cat. No.
Small Molecules & Inhibitors		
Dihydroorotate Dehydrogenase Inhibitor, Brequinar	Has immunosuppressive and anti-neoplastic properties. Inhibits pyrimidine synthesis by blocking the activity of mammalian mitochondrial dihydroorotate dehydrogenase (DHODH; IC_{50} = 12 nM).	5.08321.0001
Fn14 Antagonist, L524-0366	Competes against TWEAK C-terminal/extracellular TNF homology domain (THD) for Fn14 binding (KD = 7.12 μ M).	5.09374.0001
gp130 Inhibitor, SC144	Acts an inhibitor of gp130. Binds to gp130 and induces its phosphorylation at Ser782 in ovarian cancer cells in a time and dose-dependent manner.	5.06387.0001
InSolution™ TLR4 Inhibitor, TAK-242	A 25 mM (2 mg/221 μ L) sterile-filtered solution of TLR4 Inhibitor, TAK-242 (Cat. No. 614316) in DMSO.	5.08336.0001

Cancer

Description	Host	Species Reactivity	Key Applications	Cat. No.
Antibodies				
Anti-ABCB5, clone 5H3C6	Mouse	Hu	WB, IF, FC, IHC, EIA	MABC711
Anti-ACLY, clone 5F8D11	Mouse	Hu, Ms, Mky	WB, IHC, IF, FC, EIA	MABC697
Anti-ACP5, clone 5C5E7	Mouse	Hu	WB, FC, EIA	MABC700
Anti-Annexin VI, clone 4B11.1	Mouse	Hu, Ms	WB, IC	MABC272
 Anti-APPL1/DIP13A	Rabbit	Hu, Rt, Ms	WB, IC	ABC469
Anti-ATG9A, clone 6A11.2	Mouse	Hu	WB, IHC	MABC168
Anti-BCL2L10	Rabbit	Hu	WB, IHC	ABC406
Anti-Beclin-2, clone 4H7.1	Mouse	Hu	WB, IC	MABC266
 Anti-Bin1, clone 99D (Ascites Free)	Mouse	Hu, Chk, Ms	WB, IHC, IP, FC, IF	05-449-C
Anti-CLEC2A, clone 8D2.1	Mouse	Hu	WB	MABC664
Anti-DEK	Rabbit	Hu	WB, IHC	ABC509
Anti-EPHA1, clone 5D2	Mouse	Hu	WB, IHC	MABC701
Anti-EPHB6, clone 8E7H12	Mouse	Hu, Ms	WB, IHC	MABC702
Anti-FANCM, clone CV5.1	Mouse	Hu	IC	MABC545
Anti-HAS2, clone 4E7	Mouse	Hu	WB, IHC, IF, EIA	MABC712
Anti-HAS3, clone 3C9	Mouse	Hu	WB, IHC, FC, EIA	MABC703
Anti-IGPR-1	Rabbit	Rt, Hu	WB, IC, IHC	ABC74
Anti-Kallikrein-5/KLK5	Rabbit	Hu, Ms	WB, IHC	ABC470
Anti-KEAP1, clone 7G4B10	Mouse	Hu	IHC, FC, EIA	MABC713
Anti-KLF15	Rabbit	Hu	WB, IHC	ABC471
 Anti-MAGEA3/MAGE3	Rabbit	Hu	WB, IHC(P)	ABC468
Anti-NAPSA, clone 10C4B8	Mouse	Hu, Rt	WB, IHC, EIA	MABC704
Anti-Olfactomedin-4/OLFM4	Rabbit	Hu	WB, IHC	ABC304
 Anti-Osteoprotegerin/TNFRSF11B	Rabbit	Hu	WB, IHC(P)	ABC463
Anti-PAWR, clone 3G9H7	Mouse	Hu	WB, IHC	MABC698
Anti-PAX3, clone 7D8G7	Mouse	Hu, Ms, Rt	WB, EIA	MABC699
Anti-PDL-1/CD274, clone 3F2.1	Mouse	Hu	WB, IHC	MABC290
Anti-phospho USP7 (Ser18)	Rabbit	Hu	WB, PIA	ABC225
 Anti-PKM1	Rabbit	Ms, Hu	WB, IHC	ABC439
 Anti-PKM2	Rabbit	Hu, Ms, Rt	WB, IHC	ABC438
Anti-PROZ, clone 2B4	Mouse	Hu	WB	MABC705
Anti-Rab7A, clone 5G8.1	Mouse	Hu	WB, IHC	MABC119
Anti-RAP1A, clone 5F8	Mouse	Hu	FC, EIA	MABC706
Anti-RBP4, clone 4C2	Mouse	Hu	IHC, EIA, IF, FC	MABC707
Anti-RIF1	Rabbit	Hu, Rt	WB, IHC(P)	ABC302
Anti-SCARB1, clone 5B8.2	Mouse	Hu	WB, IHC	MABC730
 Anti-Sec15/Exoc6, clone 15S2G6	Mouse	Hu, Rt	WB, IC	MABC568
Anti-SND1, clone 2D7	Mouse	Hu	WB	MABC708
Anti-TAOK1 (long isoform), clone TAO1_1.2_VMD	Mouse	Hu	WB	MABC292
Anti-TGFBR3, clone 1C5H11	Mouse	Hu, Ms	WB, FC, EIA	MABC710
 Anti-TRP1/TYRP1, clone TA99, Azide Free	Mouse	Ms, Hu	WB, IHC, Blocking of Inteferring Antibodies, IP, FC	MABC592
Anti-UQCRFS1	Rabbit	Ms	WB	ABC322
Anti-VAMP-7	Rabbit	Ms	WB	ABC824
 Anti-Vasohibin-2, clone 5E3	Mouse	Hu, Ms	WB, IHC	MABC536
Anti-VEGF-B	Rabbit	Hu	WB, IHC(P)	ABC429
 Anti-VEGF-D	Rabbit	Hu	WB	ABC428

LEGEND

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PUBLICATION HIGHLIGHT
ON SMALL MOLECULES:

PERK Inhibitor II, GSK2656157

(Cat. No. 504651)

Merck Millipore's new PERK Inhibitor II (GSK2656157, Cat. No. 504651) is a cell-permeable, highly potent, ATP-competitive inhibitor of EIF2AK3/PERK (IC_{50} = 900 pM) and exhibits high selectivity over 300 other protein kinases. Recently, Atkins and colleagues at GlaxoSmithKline showed that this compound prevents endoplasmic reticulum (ER) stress-induced enhancement of PERK and eIF2 α phosphorylation and reduces ATF4 and CAAT/enhancer binding protein homologous protein (CHOP) levels in human and murine cells*. Oral administration to mice (~150 mg/kg) resulted in high anti-tumor efficacy.

*Characterization of a novel PERK kinase inhibitor with antitumor and antiangiogenic activity. Cancer Res. 2013 Mar 15;73(6):1993-2002.

Cancer (continued)

Description	Details	Cat. No.
Small Molecules & Inhibitors		
Beclin-1 Activator II, retro-inverso TAT-Beclin-1	More resistant to proteolytic degradation than Tat-Beclin1 (Cat. No. 506048). Shown to be more potent than Tat-Beclin1 in inducing autophagy in muscle, heart, and pancreas tissues in 6-wk-old GFP-LC3 transgenic mice (20 mg/kg i.p.) <i>in vivo</i> .	5.06416.0001
Dihydroorotate Dehydrogenase Inhibitor, Brequinar	Has immunosuppressive and anti-neoplastic properties. Inhibits pyrimidine synthesis by blocking the activity of mammalian mitochondrial dihydroorotate dehydrogenase (DHODH; IC_{50} = 12 nM).	5.08321.0001
Fn14 Antagonist, L524-0366	Competes against TWEAK C-terminal/extracellular TNF homology domain (THD) for Fn14 binding (KD = 7.12 μ M).	5.09374.0001
gp130 Inhibitor, SC144	Acts as an inhibitor of gp130. Binds to gp130 and induces its phosphorylation at Ser782 in ovarian cancer cells in a time and dose-dependent manner.	5.06387.0001
Hydroxychloroquine Sulfate (HCQ)	Increases intralysosomal pH and thereby impairs autophagic degradation process. Reduces metabolic activity and suppresses proliferation of human dermal fibroblasts.	5.09272.0001
InSolution™ Tunicamycin, Streptomyces lysosuperficus	A 25 mM (5 mg/237 μ L) sterile-filtered solution of Tunicamycin, Streptomyces lysosuperficus (Cat. No. 654380) in DMSO.	5.04570.0001
PERK Inhibitor II, GSK2656157	Acts as a potent, ATP-competitive EIF2AK3/PERK inhibitor, displaying $\geq$ 511-fold selectivity over HRI/EIF2AK1, BRK, PKR/EIF2AK2, and MEKK2 and much reduced or little activity toward more than 300 other kinases.	5.04651.0001
PKM2 Activator IV, TEPP-46	Exhibits good aqueous solubility and acts as a potent allosteric PKM2 activator by stabilizing PKM2 tetramer via stoichiometric interaction with FBP-bound PKM2 in a similar manner as PKM2 Activator III (Cat. No. 504537).	5.05487.0001

Metabolism

Description	Host	Species Reactivity	Key Applications	Cat. No.
Antibodies				
Anti-ABCG5, clone 1B5E10	Rabbit	Hu	WB, IHC, FC, EIA	MABS416
Anti-acetyl-GAPDH (Lys160)	Rabbit	Hu	WB, PIA, IP	07-2184
Anti-GLUT-4	Rabbit	Hu, Ms	WB, IHC	07-1404
Anti-PKM1	Rabbit	Ms, Hu	WB, IHC	ABC439
Anti-PKM2	Rabbit	Hu, Ms, Rt	WB, IHC	ABC438
Anti-SLC27A5, clone 4B11C10	Mouse	Hu, Ms, Mky	WB, IHC, FC, EIA	MABS418
Anti-SLC31A1, clone EPR7936, Rabbit Monoclonal	Rabbit	Hu	WB, FC	MABS398

Description	Details	Cat. No.
Small Molecules & Inhibitors		
AdipoR Agonist, AdipoRon	Acts as an adiponectin receptor agonist, effectively stimulating AMPK α -subunit Thr172 phosphorylation in murine myoblast C2C12 cultures <i>in vitro</i> and in skeletal muscle & liver tissues in mice <i>in vivo</i> .	5.09104.0001

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Cell Structure

Description	Host	Species Reactivity	Key Applications	Cat. No.
Antibodies				
Anti-acetyl Tubulin (Lys40)	Rabbit	Hu	WB	ABT241
Anti-Amelogenin, X isoform/AMELX	Rabbit	Ms, Por	WB, IHC	ABT260
Anti-Cytokeratin 18, clone CK2 (Ascites Free)	Mouse	Hu	IHC, WB, IF	MAB3404-C
Anti-E-Cadherin, clone 67A4, Azide & Ascites Free	Mouse	Hu	WB, FC, Inhib, IF	MAB3199Z-C
Anti-E-Cadherin, clone 9E3.1	Mouse	Hu	WB, FC	MABT218
Anti-EPHA1, clone 5D2	Mouse	Hu	WB, IHC	MABC701
Anti-EPHB6, clone 8E7H12	Mouse	Hu, Ms	WB, IHC	MABC702
Anti-Fibronectin (Cell Attachment Fragment), clone 3E3, Ascites & Azide Free	Mouse	Hu	WB, IHC, EIA, IC, Inhib	MAB88916-C
Anti-Filamin A, clone T110, Ascites Free	Mouse	Hu	WB, IHC, IP, FC, IF, IC	MAB1680-C
Anti-γ-1-Tubulin, clone 6H3.1	Mouse	Hu	WB, IC	MABT163
Anti-GPNMB/NMB, clone 3H7.2	Mouse	Hu	WB	MABT159
Anti-HAS2, clone 4E7	Mouse	Hu	WB, IHC, IF, EIA	MABC712
Anti-HAS3, clone 3C9	Mouse	Hu	WB, IHC, FC, EIA	MABC703
Anti-hEF1/NEDD9, clone 2G9	Mouse	Hu	WB	MABT404
Anti-IGPR-1	Rabbit	Rt, Hu	WB, IC, IHC	ABC74
Anti-IL-34, clone 1D12	Mouse	Hu	FC, IF	MABT493
Anti-Integrin B4, clone ASC-8, Azide & Ascites Free	Mouse	Hu	FC, Inhib, IHC, IP	MAB2059-C
Anti-Laminin alpha 3, clone 12C4	Mouse	Hu	WB, IC, IHC	MABT413
Anti-LIMS1, clone 5G7	Mouse	Hu	WB, EIA, FC, IF	MABT494
Anti-Matriptase-2/TPRSS6	Rabbit	Hu, Rt	WB, IHC	ABT317
Anti-MYL3, clone 7C1	Mouse	Rt	WB, IHC	MABT495
Anti-Myosin-10, clone 5H4.1	Mouse	Ms, Hu	WB	MABT391
Anti-Optineurin, clone 6A7.1	Mouse	Hu	WB, IHC	MABT185
Anti-PECAM-1, clone P2B1 (Ascites Free)	Mouse	Hu	FC, IC, IP, IHC, EIA, IF	MAB2148-C
Anti-Periostin (C-term)	Rabbit	Ms	WB	ABT253
Anti-Periostin (Pan)	Rabbit	Ms	WB, IHC	ABT280
Anti-PKN2, clone 1D1	Mouse	Hu, Rt, Ms, Mky	WB, EIA, IHC, FC	MABT496
Anti-SOX6, clone 3F4.1	Mouse	Hu	WB	MABT176
Anti-Src-like-adaptor/SLAP1, clone 1D9.1	Mouse	Hu	WB	MABT107
Anti-Sun1/alpha-musSun1-C	Rabbit	Hu, Ms, Rt	WB, IC	ABT285
Anti-Talin 1, clone TA205, N-Term, Ascites Free	Mouse	Hu	WB, IHC(P), IP, Inhib, IF	MAB1676-C
Anti-Tropomyosin 4	Rabbit	Hu, Ms, Rt	WB, IHC(P)	ABT189
Anti-TUBB2A, clone 6A10B2	Mouse	Hu	WB, EIA, FC	MABT497

Description	Details	Cat. No.
Small Molecules & Inhibitors		
InSolution™ CMP-Sialic Acid, Disodium Salt	A 25 mM (10 mg/608 µL) sterile-filtered solution of CMP-Sialic Acid, Disodium Salt (Cat. No. 233264) in H ₂ O.	5.05223.0001
Late Endosome Trafficking Inhibitor, EGA	Prevents B. anthrax Lethal toxin/LT, diphtheria toxin/DT, P. aeruginosa ExoA, and H. ducreyi cytolethal distending toxin (Hd-CDT) from exerting their cytotoxic activity, but not endocytic uptake.	5.09306.0001
LipidGreen2	Shown to selectively stain neutral lipids, but not phospholipids, in various cells lines with bright fluorescence and with minimal non-specific background.	5.06029.0001

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Epigenetics & Nuclear Function

Description	Host	Species Reactivity	Key Applications	Cat. No.
Antibodies				
Anti-5-Methylcytosine, clone EP4694, Rabbit Monoclonal	Rabbit	Hu	MeDIP, EIA	MABE527
Anti-acetyl Histone H2B (Lys5)	Rabbit	Hu	WB, DB, IP	07-382
Anti-acetyl Histone H4 (Lys12)	Rabbit	Hu, Ms, Rt	WB, IC, DB	06-1352-I
Anti-acetyl Histone H4 (Lys12), Trial Size	Rabbit	Hu, Ms, Rt	WB, IC, DB	06-1352-IS
Anti-ADAR2, clone 2D1.1	Mouse	Hu	WB, IC	MABE355
Anti-ALKBH, clone EPR6176, Rabbit Monoclonal	Rabbit	Hu	WB, IHC	MABE538
Anti-ASF-1, clone AK-96	Mouse	Hu	WB, IP, IC	MABE936 
Anti-BATF3	Rabbit	Hu	WB, FC	ABE1007
Anti-Bromodomain-containing protein 8, clone 4F6.1	Mouse	Hu	WB	MABE353
Anti-CDK1/CDC2 (C-Term)	Rabbit	Ms	IP, WB	06-966
Anti-CK1, clone 3C10F7	Mouse	Hu	IHC	MABE569
Anti-DBF4, clone 7H8.1	Mouse	Hu	WB	MABE338
Anti-DDB1, clone EPR6089, Rabbit Monoclonal	Rabbit	Hu, Ms	WB, IHC	MABE503
Anti-DDX50, clone EPR5272, Rabbit Monoclonal	Rabbit	Hu	WB	MABE532
Anti-dimethyl-Histone H4 (Arg3) Asymmetric	Rabbit	Hu, Ms, Rt	WB, IP, DB	07-213-I 
Anti-dimethyl-Histone H4 (Arg3) Asymmetric (Trial Size)	Rabbit	Hu, Ms, Rt	WB, IP, DB	07-213-IS 
Anti-Early B-cell factor (EBF1)	Rabbit	Ms	WB, ChIP	ABE1294 
Anti-FANCM, clone CV5.1	Mouse	Hu	IC	MABC545
Anti-FOXO1	Rabbit	Hu, Ms	WB, IHC, IP	ABE1000
Anti-Friend of PRMT1	Rabbit	Hu, Ms, Rt	WB, ChIP	ABE234
Anti-Histone H3.1, clone 1D4F2	Rat	Hu, Ms	WB, IC, IP, ChIP, ChIP-seq	MABE952 
Anti-Histone H3.3, clone 4H2D7	Rat	Hu, Ms	WB, IC, ChIP	MABE872 
Anti-Histone H3.3, clone 6C4A3	Rat	Hu, Mky, Ms, Can	WB	MABE951
Anti-JMJD2C, clone 6A3.1	Mouse	Hu	WB, IC	MABE315
Anti-KLF1, clone 1B6A3	Mouse	Hu	IHC, FC, EIA	MABE572
Anti-KLF15	Rabbit	Hu	WB, IHC	ABC471
Anti-Klf4, clone 10E3.1	Mouse	Hu	WB, IC	MABD35
Anti-Ligand-dependent nuclear receptor-interacting factor 1	Rabbit	Hu, Ms	WB, IC	ABE1008
Anti-LSM2, clone EPR7216, Rabbit Monoclonal	Rabbit	Hu	WB	MABE528
Anti-Lymphoid-specific helicase (SMARCA6), clone 2G7.1	Mouse	Hu	WB, IHC	MABE421
Anti-MARWI/PIWI, clone 2D9	Mouse	Rt, Ms, Rb	IHC	MABE896
Anti-MBNL2, clone MB2a(3B4)	Mouse	Ms	WB	MABE959 
Anti-Misu/NSun2	Rabbit	Hu	WB, IC, IHC	ABE1076 
Anti-monomethyl Histone H3 (Lys4), Alexa Fluor® 488 Conjugate	Rabbit	Hu	IC	07-436-AF488
Anti-monomethyl Histone H4 (Lys20), Alexa Fluor® 647 Conjugate	Rabbit	Hu	IC	07-748-AF647
Anti-MPS-1, clone 4A12	Mouse	Hu	IHC	MABE571
Anti-MSH3, clone 1F6	Mouse	Ms	WB, IC	MABE324 
Anti-N-CoR1, clone 7A7A9	Mouse	Hu	IHC	MABE570
Anti-NEK6, clone EPR5282, Rabbit Monoclonal	Rabbit	Hu	WB	MABE541
Anti-pan Ago, clone 13A2	Rat	Hu, Ms	WB, IHC	MABE900
Anti-PAX3, clone 7D8G7	Mouse	Hu, Ms, Rt	WB, EIA	MABC699
Anti-phospho CRTC1 (Ser151)	Rabbit	Rt, Ms	WB, PIA	ABE560 
Anti-phospho Histone H2A.X (Ser139), clone JBW301, Alexa Fluor® 488 Conjugate	Mouse	Hu	IC	05-636-AF488
Anti-phospho Histone H2A.X (Ser139), clone JBW301, Alexa Fluor® 647	Mouse	Hu	IC	05-636-AF647
Anti-phospho Histone H2B (Tyr37), clone 15	Mouse	Hu, Ms	WB, ChIP	MABE433 
Anti-phospho Histone H3 (Ser10), Alexa Fluor® 488 Conjugate	Rabbit	Hu, Ms	IC	06-570-AF488

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Epigenetics & Nuclear Function (continued)

Description	Host	Species Reactivity	Key Applications	Cat. No.
Antibodies (continued)				
Anti-phospho Histone H3 (Ser10), Alexa Fluor® 647 Conjugate	Rabbit	Hu	IC	06-570-AF647
Anti-phospho Histone H3 (Ser10), clone 3H10, Alexa Fluor® 647	Mouse	Hu	IC	05-806-AF647
Anti-phospho Histone H3 (Ser10), clone 6G8B7	Rat	Hu	WB, IC, EIA	MABE939
Anti-phospho Histone H3 (Thr11), clone 6G12C5	Rat	Hu	WB, DB, EIA, IC	MABE940
Anti-phospho Histone H3 (Thr11), clone N123/48	Mouse	Hu	WB, IC, DB	MABE435
Anti-phospho Histone H3 (Tyr41)	Rabbit	Hu, Ms	WB, IC, DB	ABE566
Anti-phospho RNA Pol II (Ser2), clone 3E7C7	Rat	Hu, Mky, Can, Ms, Rt	WB, ChIP-seq, EIA, IC, ChIP	MABE953
Anti-phospho RNA Pol II (Ser5), clone 1H4B6	Rat	Hu, Can, Mky, Ms, Rt	WB, ChIP-seq, IC, EIA, ChIP	MABE954
Anti-phospho RNA Pol II (Ser7), clone 3D4A12	Rat	Hu, Ms, Can, Mky, Rt	WB, ChIP-seq, ChIP, IC, EIA	MABE955
Anti-phospho TIN2 (Ser295)	Rabbit	Hu	WB	ABE1314
Anti-phospho-TIF1-beta (Ser824), clone EPR5248, Rabbit Monoclonal	Rabbit	Hu	WB	MABE467
Anti-PRMT7	Rabbit	Hu	WB	ABE125
Anti-Puromycin, clone 12D10, Alexa Fluor® 488 Conjugate	Mouse	Hu	IC	MABE343-AF488
Anti-Puromycin, clone 12D10, Alexa Fluor® 647 Conjugate	Mouse	Hu	IC	MABE343-AF647
Anti-Puromycin, clone 17H1, Alexa Fluor® 488 Conjugate	Rat	Hu	IC	MABE341-AF488
Anti-Puromycin, clone 17H1, Alexa Fluor® 647 Conjugate	Rat	Hu	IC	MABE341-AF647
Anti-Puromycin, clone 4G11, Alexa Fluor 488® Conjugate	Mouse	Hu	IC	MABE342-AF488
Anti-Puromycin, clone 4G11, Alexa Fluor 647® Conjugate	Mouse	Hu	IC	MABE342-AF647
Anti-SBDS, clone EPR7819, Rabbit Monoclonal	Rabbit	Hu	WB	MABE524
Anti-SOX-15, clone 1A2.1	Mouse	Hu	WB, IC	MABD94
Anti-SOX6, clone 3F4.1	Mouse	Hu	WB	MABT176
Anti-TARDBP, clone EPR5810, Rabbit Monoclonal	Rabbit	Hu	WB, IHC	MABE510
Anti-THAP domain-containing protein 1	Rabbit	Hu	WB, IHC(P)	ABE1006
Anti-TIF1-β	Rabbit	Hu	WB, IC	ABE1023
Anti-Topoisomerase II β, clone EPR5377, Rabbit Monoclonal	Rabbit	Hu, Rt, Ms	WB, IHC	MABE519
Anti-USP39, clone EPR8684, Rabbit Monoclonal	Rabbit	Hu	WB, IHC	MABE522
ChIPAb+™ CBX8	Rabbit	Hu	ChIP, WB	17-10135
ChIPAb+™ LSD1	Rabbit	Hu, Ms, Rt	ChIP, WB, IP	17-10531
ChIPAb+™ MeCP2	Chicken	Ms, Rt, Hu	WB, ChIP, IP	17-10491
ChIPAb+™ MED1	Rabbit	Hu, Ms	ChIP, WB	17-10530
Conjugated Antibodies				
Anti-trimethyl Histone H3 (Lys27) Antibody, clone 18E9.1, Alexa Fluor® 488 Conjugate	Mouse	Hu, Ms	IC	05-1951-AF488
Anti-trimethyl Histone H3 (Lys27), Alexa Fluor® 647 Conjugate	Rabbit	Hu	IC	07-449-AF647
Anti-trimethyl Histone H3 (Lys9) Antibody, Alexa Fluor® 488 Conjugate	Rabbit	Hu	IC	07-442-AF488
Anti-trimethyl Histone H3 (Lys9) Antibody, Alexa Fluor® 647 Conjugate	Rabbit	Hu	IC	07-442-AF647
Kits & Assays				
CpGenome™ Direct Prep Bisulfite Modification Kit (200 Reactions)				17-10452
CpGenome™ Direct Prep Bisulfite Modification Kit (50 Reactions)				17-10451
CpGenome™ Direct Prep-96 Bisulfite Modification Kit (192 Reactions)				17-10454



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Epigenetics & Nuclear Function (continued)

PUBLICATION HIGHLIGHT ON SMALL MOLECULES:

RNA Polymerase I Inhibitor II, CX-5461

(Cat. No. 505487)

Merck Millipore recently introduced RNA Polymerase I Inhibitor II, CX-5461 (Cat. No. 505487), a cell-permeable, highly potent, selective, and reversible inhibitor of RNA polymerase I-mediated ribosomal RNA (rRNA) synthesis by affecting the initiation stage, without affecting RNA polymerase II activity. This compound was used in an important study published in Cancer Cell showing its induction of p53-dependent apoptotic cell death in various malignant cells ($IC_{50} = 5.4$ nM in Em-Myc lymphoma cells), while exhibiting no effect on normal B cells and spleen cells in wild-type, non-tumor-bearing mice*.

*Bywater et al. Inhibition of RNA polymerase I as a therapeutic strategy to promote cancer-specific activation of p53. Cancer Cell. 2012 Jul 10;22(1):51-65.

Description	Host	Species Reactivity	Key Applications	Cat. No.
Proteins & Enzymes				
Human Recombinant ASF1a	<i>E. coli</i>			14-1114
Human Recombinant ASF1b	<i>E. coli</i>			14-1115
Human Recombinant MBD4 (Active Full Length)			Enzyme Assay	14-1065
Human Recombinant MeCP2			DNA-binding Proteins	14-1067
Human Recombinant PRMT5 (Active Full Length)			Histone Methyltransferase Assay (HMT)	14-1102
Mouse Recombinant TDG (Active Full Length)			DNA-binding Proteins	14-1066

Description	Details	Cat. No.
Small Molecules & Inhibitors		
InSolution™ EZH2 Inhibitor, DZNep	A 25 mM (1 mg/98 µL) sterile-filtered solution of Histone Methyltransferase EZH2 Inhibitor, DZNep (Cat. No. 252790) in H ₂ O.	5.06069.0001
InSolution™ Ginkgolic Acid (15:1)	A 25 mM (2 mg/231 µL) sterile-filtered solution of Ginkgolic Acid (15:1) (Cat. No. 345887) in DMSO.	5.08197.0001
JHDM Inhibitor VII, JIB-04	Acts as a selective inhibitor against Jumonji family histone demethylases, presumably via catalytic site iron interaction.	5.09453.0001
LSD1 Inhibitor VII	Acts as a potent, selective, reversible, and non-competitive inhibitor of Lysine-Specific Demethylase 1.	5.09703.0001
RNA Polymerase I Inhibitor II, CX-5461	Inhibits RNA polymerase I-mediated pre-rRNA transcription, but not Pol II-mediated c-myc transcription, by preventing TAF SL1 and rDNA association.	5.09265.0001
Windorphen	Acts as a p300-selective histone acetyltransferase (HAT) inhibitor and selectively disrupts β-catenin association with p300, but not CBP or LEF1/TCF4.	5.09164.0001
Windorphen, Inactive Control	Serves as a suitable inactive control for p300/CBP Inhibitor X, Windorphen (Cat. no. 509164).	5.09166.0001

Neuroscience

Description	Host	Species Reactivity	Key Applications	Cat. No.
Antibodies				
Anti-Adenosine Deaminase, clone 9H12.1	Mouse	Hu	WB, IHC(P)	MABN452
Anti-ADNP1, clone 5F5.1	Mouse	Hu	WB	MABN677
Anti-Aggregated α-Synuclein, clone 5G4	Mouse	Hu	WB, IHC, EIA	MABN389
Anti-Alanyl-tRNA synthetase (AARS), clone M6-P2E5	Mouse	Hu, Ms	WB, IHC(P)	MABN376
Anti-Amyloid βA4, clone 1E8 (Amino Terminus)	Mouse	Hu	WB, IHC, IP	MABN639
Anti-Aquaporin 1	Rabbit	Hu, Rt, Ms	WB, IHC	AB2219
Anti-Aquaporin 5	Rabbit	Rt, Ms	WB, IHC(P)	AB15858
Anti-ARMS2	Rabbit	Hu	IHC(P)	ABN107
Anti-BM88/Cend1, clone 4A3.1	Mouse	Hu	WB, IHC	MABN317
Anti-CNGB1, clone 5A5.1	Mouse	Hu	WB	MABN282
Anti-Cox-1, clone 5C5.1	Mouse	Hu	WB, IHC	MABN628
Anti-DISC1	Rabbit	Ms	WB, IHC	ABN425
Anti-DISC1, clone 3D4	Mouse	Hu	IHC(P), WB, IC	MABN759
Anti-Equilibrative Nucleoside Transporter 1	Rabbit	Hu	WB, IHC(P)	ABN423
Anti-FBP2, clone EPR7436, Rabbit Monoclonal	Rabbit	Hu, Rt, Ms	WB, IHC	MABN1049
Anti-FE65	Rabbit	Hu, Ms	IHC, WB, IP	ABN451
Anti-FTCD, clone EPR7909, Rabbit Monoclonal	Rabbit	Hu	WB, IHC	MABN1068
Anti-GST α 1 (GSTO1), clone 1H10.1	Mouse	Hu, Rt	WB, IHC(P)	MABN642
Anti-MEIS1, clone EPR5781, Rabbit Monoclonal	Rabbit	Hu	WB, FC	MABN1071
Anti-Myelin Regulatory Factor (MRF)	Rabbit	Hu, Ms	WB, IHC	ABN45
Anti-nNOS/NOS I	Rabbit	Rt, Ms	WB, IHC(P)	07-571-I
Anti-PDE1B, clone 10B10B12	Rabbit	Hu, Ms, Rt	WB, FC, EIA	MABN1097

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Neuroscience (continued)

Description	Host	Species Reactivity	Key Applications	Cat. No.
Anti-PDE1B, clone 5C4A3	Mouse	Hu, Rt	WB, IHC, FC, EIA	MABN1098
Anti-Peroxiredoxin-2	Rabbit	Ms, Hu, Rt	WB, IC	ABN1011
 Anti-phospho Tau (Thr181), clone 1E7	Mouse	Ms, Hu	WB	MABN388
Anti-POU3F2, clone 6H12	Rabbit	Hu	WB, EIA	MABN1099
Anti-Protein capicua homolog (CIC), clone 6E12.1	Mouse	Hu, Rt	IHC(P)	MABN449
Anti-REG1A, clone 1A4	Mouse	Hu	IHC, IF	MABN1100
Anti-SRY, clone 1G4	Mouse	Hu	WB, IHC, FC, EIA	MABN1101
Anti-Synaptotagmin-12 (SYT12), clone 1B12.1	Mouse	Rt, Hu	WB	MABN349
Anti-Synaptotagmin-like protein 1 (SYTL1), clone 2F2.2	Mouse	Hu	WB, IHC	MABN445
Anti-Syntenin-1, clone 4F4.1	Mouse	Hu	WB	MABN160
 Anti-Tau (T22), oligomeric	Rabbit	Hu, Ms, Rt	WB, DB, IHC, IC, Neut, IP	ABN454
 Anti-TREM-2, clone 78	Rat	Hu, Rt, Ms	WB, IC, FC, Inhib, IP	MABN755
Anti-TRPM4	Rabbit	Hu, Ms, Rt	WB, IHC	ABN418
Anti-Tryptophan hydroxylase 1/TPH1	Rabbit	Ms	WB, IHC(P)	AB15570-I
Anti-VAMP-7	Rabbit	Ms	WB	ABC824
Anti-ZNF423	Rabbit	Hu, Ms, Rt	WB, IHC(P), IC	ABN410
 Anti- α -Synuclein, clone 10D2	Mouse	Hu	WB, IHC, EIA	MABN633
Cell Lines				
N27 Rat Dopaminergic Neural Cell Line			CC, Stem CC	SCC048

Description	Details	Cat. No.
Small Molecules & Inhibitors 		
(S)-5-Iodowillardiine	A potent agonist highly selective for GluK1-containing subtype kainate receptors over GluK2-containing subtypes.	5.09707.0001
Calcium Channel Blocker, Isradipine	A water soluble voltage gated calcium channel gating inhibitor of the dihydropyridine class. Often prescribed for hypertension (trade names DynaCirc, Prescal), recent animal models suggest a use in Parkinson's Disease.	5.08507.0001
Calcium Channel Blocker, SNX-482	A peptidyl toxin present in the venom of African tarantula, Hysterocrates gigas that acts as a high affinity, reversible blocker of Cav2.3 (α 1E, R-type) channels.	5.08512.0001
Calcium-activated Potassium Channels Activator, NS309	A potent activator of Ca^{2+} -activated K^{+} channels of SK and IK types but not BK type channels. NS309 is at least 1000 times more potent than 1-EBIO and at least 30 times more potent than DC-EBIO when the compounds are compared on the same cell.	5.08509.0001
Difluorobenzaldazine (DFB)	A positive allosteric modulator for mGlu receptor subtype 5 ($EC_{50} = 2 - 5.3 \mu M$).	5.09706.0001
GABAB Receptor Agonist, SKF-97541	A highly potent agonist of GABAB receptor. Shown to be about 10-times more potent than baclofen (Cat. No. 505873).	5.09708.0001
Gabapentin	A water soluble GABA analog originally developed to treat epilepsy and neuropathic pain but is not believed to act on the same brain receptors. Gabapentin interacts with voltage-gated calcium channels in cortical neurons.	5.08506.0001
HCN Channel Blocker, ZD 7288	A potent blocker of hyperpolarization-activated cyclic nucleotide-gated channels (HCN channels) in heart and brain tissue.	5.08510.0001
Opn4 Antagonist	Prevents melanopsin/Opn4 photoactivation in a reversible and cis-Retinal-competitive manner without apparent affinity toward bovine retina rhodopsin or a panel of 74 other receptors, ion channels, and enzymes.	5.09267.0001
Psalmotoxin-1	A potent proton-gated sodium channel (ASIC1a) channel blocking neurotoxin ($IC_{50} = 0.9 \text{ nM}$) isolated from the Trinidad chevron tarantula.	5.08514.0001
REST Inhibitor, X5050	Acts as an inhibitor of repressor element-1 silencing transcription factor (REST). Induces a dose-dependent reduction in the 122 kDa isoforms of REST in HEK cells.	5.06026.0001
Sodium Channel Blocker, A-803467	A voltage gated sodium channel type 1.8 (Nav1.8) pore blocker. Potently blocks tetrodotoxin-resistant currents ($IC_{50} = 140 \text{ nM}$) and the generation of spontaneous and electrically evoked action potentials <i>in vitro</i> in rat dorsal root ganglion neurons.	5.08505.0001
Zonisamide	Acts as an antiepileptic agent and is shown to block voltage-dependent Na^{+} channels and T-type Ca^{2+} channels.	5.08508.0001

LEGEND

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Signaling

Description	Host	Species Reactivity	Key Applications	Cat. No.
Antibodies				
Anti-ABCG5, clone 1B5E10	Rabbit	Hu	WB, IHC, FC, EIA	MABS416
Anti-acetyl-GAPDH (Lys160)	Rabbit	Hu	WB, PIA, IP	07-2184
Anti-AKAP-12	Rabbit	Rt, Ms	WB, IC	ABS510
Anti-BMPR-1A, clone 4B7B2	Mouse	Hu, Ms	WB, IHC, FC, EIA	MABS419
Anti-CACYBP, clone 7D11	Mouse	Hu	IHC	MABS420
Anti-DKK3, clone 4G7	Mouse	Hu	WB, FC	MABS421
Anti-Eps15	Rabbit	Hu, Ms, Rt	WB, IC, IHC	ABS548 
Anti-FABP1	Rabbit	Hu, Ms	WB	ABS538 
Anti-FGF4, clone 2D7D5	Mouse	Ms	FC, EIA	MABS422
Anti-GLUT-4	Rabbit	Hu, Ms	WB, IHC	07-1404
Anti-GOT2, clone 3E9	Mouse	Hu, Ms, Rt, Mky	WB, IF	MABS417
Anti-GRP-78, clone C107	Mouse	Hu, Ms	WB, FC, Inhibits Activity/Function	MABS475 
Anti-GRP78, clone N88	Mouse	Hu, Ms	WB, AA, FC	MABS474 
Anti-LHCGR	Rabbit	Ms	WB	ABS469
Anti-Linear Ubiquitin, clone 1E3	Rabbit	Hu	WB, IP, IC	MABS199 
Anti-MuSK	Rabbit	Hu, Ms	WB, IHC, IP	ABS549 
Anti-P40, clone 11F12.1	Mouse	Hu	IHC(P), WB	MABS519
Anti-Perilipin-3, C-terminus	Rabbit	Ms	WB, IC	ABS482 
Anti-Perilipin-4, N-term	Rabbit	Ms	WB, IHC, IC	ABS526 
Anti-PI3K Type 3	Rabbit	Hu, Ms	IC	07-2186
Anti-PPM1A, clone 7F12	Mouse	Hu	WB, FC, EIA	MABS415
Anti-SLC27A5, clone 4B11C10	Mouse	Hu, Ms, Mky	WB, IHC, FC, EIA	MABS418
Anti-SLC31A1, clone EPR7936, Rabbit Monoclonal	Rabbit	Hu	WB, FC	MABS398
Anti-SLC5A3	Rabbit	Hu	WB, IHC(P)	ABS518
Anti-SOCS1, clone 4H1 (Ascites Free)	Mouse	Hu	WB, IP	04-002-C
Anti-SRD5A2, clone EPR6281(B), Rabbit Monoclonal	Rabbit	Hu	WB	MABS399
Anti-Trefoil Factor 3 (TFF3)	Rabbit	Can	WB, IHC(P), MPX	ABS185 
Anti-β Pix, SH3 Domain	Rabbit	Hu, Ms, Rt	WB	07-1450-I

Description	Details	Cat. No.
Small Molecules & Inhibitors 		
Adenovirus Proteinase Inhibitor, NSC 37249	Acts as a potent and selective inhibitor against adenovirus cysteine proteinase AVP by targeting simultaneously AVP co-factor pVlc N-terminal binding pocket and AVP-pVlc substrate-binding site, blocking both AVP-pVlc active complex formation and catalytic activity without affecting trypsin or papain protease activity.	5.05855.0001
AdipoR Agonist, AdipoRon	Acts as an adiponectin receptor agonist, effectively stimulating AMPK α-subunit Thr172 phosphorylation in murine myoblast C2C12 cultures <i>in vitro</i> and in skeletal muscle & liver tissues in mice <i>in vivo</i> .	5.09104.0001
AMPK Activator II	Acts as a direct, potent, selective, reversible, and allosteric activator of AMPK.	171258-10MG
BDK Inhibitor II, (S)-CPP	Is superior to its structural analog 4PB (Cat. No. 567616) as an inhibitor against mitochondrial branched-chain α-ketoacid dehydrogenase complex (BCKDC) regulatory kinase BDK (BCKD kinase).	5.05602.0001
Casein Kinase I Inhibitor VIII	Acts as an ATP site-targeting, γ isotype-selective CK1 inhibitor, inhibiting GSK-3β only at much higher concentrations.	5.00494.0001
GPR40 Agonist III	Acts as a highly potent, and selective agonist of free fatty acid receptor 1.	5.08941.0001
IKKε/TBK1 Inhibitor II, MRT67307	A cell-permeable BX795 analog (Cat. No. 204001) that acts as a potent, ATP-competitive, and reversible dual kinase inhibitor of TBK1/IKKε with excellent selectivity over IKKα and IKKβ.	5.06306.0001
InSolution™ AEBSF, Hydrochloride	A 50 mM (50 mg/4.17 mL) sterile-filtered solution of AEBSF, Hydrochloride (Cat. No. 101500) in H ₂ O.	5.08436.0001
InSolution™ Aphidicolin	A 30 mM (1 mg/98 μL) sterile-filtered solution of Aphidicolin (Cat. No. 178273) in DMSO.	5.04744.0001
InSolution™ Pepstatin A, Synthetic	A 25 μM (10 mg/583 μL) sterile-filtered solution of Pepstatin A, Synthetic (Cat. No. 516481) in DMSO.	5.08437.0001

LEGEND

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Stem Cell Research

Description	Host	Species Reactivity	Key Applications	Cat. No.
Antibodies				
Anti-Cytoplasm Marker, clone 6F7.2	Mouse	Hu, Ms	IC	MABD128
Anti-Fbx16	Rabbit	Hu	WB, IHC	ABD70
Anti-Klf4, clone 10E3.1	Mouse	Hu	WB, IC	MABD35
Anti-podocalyxin associated keratan sulfate, clone R-10G	Mouse	Hu	IC, WB	MABD151
Anti-Rex-1	Rabbit	Hu	WB, IC	ABD99
Anti-SIP1, clone 6E5	Mouse	Hu	WB, IC, IHC	MABD407
Anti-SOX-15, clone 1A2.1	Mouse	Hu	WB, IC	MABD94
Anti-ZFP42, clone 5E11A6	Mouse	Hu, Ms	WB, IHC, FC, EIA	MABD173

Cell Lines

LX-2 Human Hepatic Stellate Cell Line				SCC064
N27 Rat Dopaminergic Neural Cell Line			CC, Stem CC	SCC048

Culture Media & Reagents

AOF ITS Supplement (100X), 100 mL			CC, Cell Stimulation, Cell Growth, Stem CC	SCM055
AOF ITS Supplement (100X), 10 mL			CC, Cell Stimulation, Cell Growth, Stem CC	SCM054

Proteins & Enzymes

GDNF, Human Recombinant				
Animal Free*				GF322
HumanKine® Activin A, Human Recombinant Xeno-Free				GF400-MG
HumanKine® FGF basic, Human Recombinant Xeno-Free				GF407-MG
HumanKine® HGF, Human Recombinant Xeno-Free				GF414-MG
HumanKine® IL-1 β, Human Recombinant Xeno-Free				GF418-MG
HumanKine® IL-6, Human Recombinant Xeno-Free				GF430-MG
HumanKine® TGF β 1, Human Recombinant Xeno-Free				GF439-MG
HumanKine® Thermostable bFGF, Human Recombinant				GF446-10UG
HumanKine® Thermostable bFGF, Human Recombinant				GF446-50UG
HumanKine® Thermostable bFGF, Human Recombinant				GF446-MG
IL-6 HumanKine® TNF α, Human Recombinant Xeno-Free				GF442-MG
Human Recombinant Animal Free				GF338
LIF, Human Recombinant Animal Free				GF342

Description	Details	Cat. No.
Small Molecules & Inhibitors		
HMTase Inhibitor XI, RSC133	Reported to target Dnmt1 at the cofactor SAM-binding site and enhance the efficiency of iPSC production from both murine MEF and human foreskin fibroblast cultures with accompanying cellular Dnmt1 activity reduction, affecting hFF viability only at high concentrations.	5.00509.0001

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PUBLICATION HIGHLIGHT

LX-2 Human Hepatic Stellate Cell Line

(Cat. No. SCC064)

Merck Millipore now offers a tool for the analysis of liver function and disease: LX-2 Human Hepatic Stellate Cell Line (SCC064). The LX-2 cell line was established and characterized by researches from the Mount Sinai School of Medicine, and they presented their findings on the comparison with primary human stellate cells. In the L Xu, et al paper entitled, Human hepatic stellate cell lines, LX-1 and LX-2: new tools for analysis of hepatic fibrosis*

The researchers have generated the LX-2 cell line by spontaneous immortalization in low serum conditions. Similar to primary Hepatic Stellate Cells (HSCs), this line expresses key receptors regulating hepatic fibrosis, including platelet derived growth factor receptor b (bPDGF-R), obese receptor long form (Ob-RL), and discoidin domain receptor 2 (DDR2), as well as proteins involved in matrix remodeling, such as matrix metalloproteinase (MMP)-2, tissue inhibitor of matrix metalloproteinase (TIMP)-2, and MT1-MMP. The authors showed that LX-2 cells have a reduced expression of TIMP-1, and were found to proliferate in response to PDGF. The cell line shows a high similarity (98.7%) in gene expression when compared to primary HSCs. Key advantages of the LX-2 cell line are that they are viable in serum-free media, and they demonstrate high levels of transfection. The LX-2 Human Hepatic Stellate Cell Line provides a valuable new tool for the study of liver disease.

* Gut (2005) 54:142-151

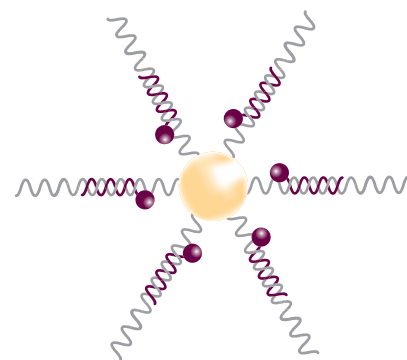
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Description	Cat. No.	Description	Cat. No.	Description	Cat. No.
ACTA1; Human, Cy5	SF-2396	CYBB; Human, Cy3	SF-1591	LTK; Human, Cy3	SF-1782
AFF3; Human, Cy3	SF-1321	Cyclin E1; Human, Cy5	SF-2440	LTK; Human, Cy5	SF-1781
AFF3; Human, Cy5	SF-1320	CYP3A4; Human, Cy3	SF-2940	MADD; Human, Cy5	SF-2500
AGTR1; Human, Cy5	SF-2693	DAXX; Human, Cy3	SF-1995	MAP2K1; Human, Cy5	SF-2502
AICDA; Human, Cy5	SF-2695	DNML1; Human, Cy5	SF-2755	MAP2K4; Human, Cy5	SF-2508
AMOT; Human, Cy5	SF-2697	DPYD; Human, Cy3	SF-2007	MAP2K5; Human, Cy5	SF-2510
AQR; Human, Cy5	SF-2699	DRD1; Human, Cy5	SF-2757	MAP2K6; Human, Cy5	SF-2512
ARAF; Human, Cy5	SF-2402	DUSP8; Human, Cy5	SF-2458	MAP2K7; Human, Cy3	SF-2515
ARID2; Human, Cy5	SF-1387	EGF; Human, Cy5	SF-2462	MAP2K7; Human, Cy5	SF-2514
ATG5; Human, Cy3	SF-2078	EGR1; Human, Cy5	SF-2464	MAP3K1; Human, Cy5	SF-2516
ATG5; Human, Cy5	SF-2077	EN2; Human, Cy3	SF-2467	MAP3K3; Human, Cy5	SF-2524
ATR; Human, Cy3	SF-1394	EN2; Human, Cy5	SF-2466	MAP3K6; Human, Cy5	SF-2530
BIRC5; Human, Cy5	SF-1336	EPHB6; Human, Cy3	SF-2025	MAP3K7; Human, Cy5	SF-2532
BRCA2; Human, Cy5	SF-2703	ETS2; Human, Cy5	SF-2468	MAP3K8; Human, Cy5	SF-2534
C10A; Human, Cy5	SF-2709	FANCF; Human, Cy3	SF-2057	MAP4K1; Human, Cy3	SF-2539
C10B; Human, Cy5	SF-2711	FOXA1; Human, Cy3	SF-1733	MAP4K1; Human, Cy5	SF-2538
C10C; Human, Cy5	SF-2713	FOXL2; Human, Cy5	SF-1734	MAP4K2; Human, Cy5	SF-2540
CA125; Human, Cy5	SF-2408	FOX4; Human, Cy3	SF-1739	MAPK10; Human, Cy3	SF-2543
CACNA1G; Human, Cy3	SF-2411	FOX4; Human, Cy5	SF-1738	MAPK10; Human, Cy5	SF-2542
CACNA1G; Human, Cy5	SF-2410	FYN; Human, Cy5	SF-2474	MAPK11; Human, Cy3	SF-2545
CB1; Human, Cy5	SF-2717	GABRB3; Human, Cy5	SF-2476	MAPK11; Human, Cy5	SF-2544
CCK; Human, Cy5	SF-2721	GLA; Human, Cy5	SF-2779	MAPK12; Human, Cy5	SF-2546
CCNA2; Human, Cy5	SF-2414	GRB2; Human, Cy5	SF-2480	MAPK13; Human, Cy5	SF-2548
CD10; Human, Cy3	SF-2417	GRN; Human, Cy5	SF-2787	MAPK15; Human, Cy5	SF-2550
CD14; Human, Cy3	SF-1557	GSTP1; Human, Cy5	SF-2482	MAPK3; Human, Cy5	SF-2552
CD163; Human, Cy5	SF-2418	HMGAI1; Human, Cy5	SF-2789	MAPK4; Human, Cy5	SF-2554
CD166 ; Human, Cy3	SF-2421	HOMER1A; Human, Cy5	SF-2791	MAPK6; Human, Cy5	SF-2556
CD166 ; Human, Cy5	SF-2420	HOXA1; Human, Cy3	SF-2485	MAPK7; Human, Cy5	SF-2558
CD26; Human, Cy5	SF-2939	HOXA1; Human, Cy5	SF-2484	MAPK8; Human, Cy5	SF-2560
CD33; Human, Cy5	SF-2422	HOXB1; Human, Cy5	SF-2486	MAPK8IP1; Human, Cy5	SF-2562
CDC42; Human, Cy5	SF-2424	HSPB1; Human, Cy5	SF-2490	MAPK8IP2; Human, Cy5	SF-2564
CDK2; Human, Cy5	SF-2428	HTR1A; Human, Cy5	SF-2795	MAPK9; Human, Cy5	SF-2566
CDKN1B; Human, Cy5	SF-2731	IL12B; Human, Cy5	SF-1484	MAPKAPK2; Human, Cy5	SF-2568
CDKN1C; Human, Cy5	SF-2733	IL21R; Human, Cy3	SF-1746	MAPKAPK3; Human, Cy5	SF-2570
CELF4; Human, Cy5	SF-2735	INOS; Human, Cy5	SF-2494	MAPKAPK5; Human, Cy5	SF-2572
CFH; Human, Cy5	SF-2739	KDM5C; Human, Cy5	SF-1726	MCL1; Human, Cy5	SF-2807
CHAMP1; Human, Cy5	SF-2741	KISS1; Human, Cy5	SF-2799	MECP2; Human, Cy3	SF-2575
CKAP2; Human, Cy5	SF-2743	KLRD1; Human, Cy3	SF-1597	MEF2A; Human, Cy5	SF-2576
CNTNAP2; Human, Cy5	SF-2430	KRT14; Human, Cy3	SF-1731	miR-128-3p; Human, Cy3	SF-1624
CSF1 ; Human, Cy5	SF-2436	LIN28A; Human, Cy5	SF-2801	MKL1; Human, Cy5	SF-2811
CSMD3; Human, Cy5	SF-1982	LRP1B; Human, Cy3	SF-1780	MLL2; Human, Cy5	SF-1803

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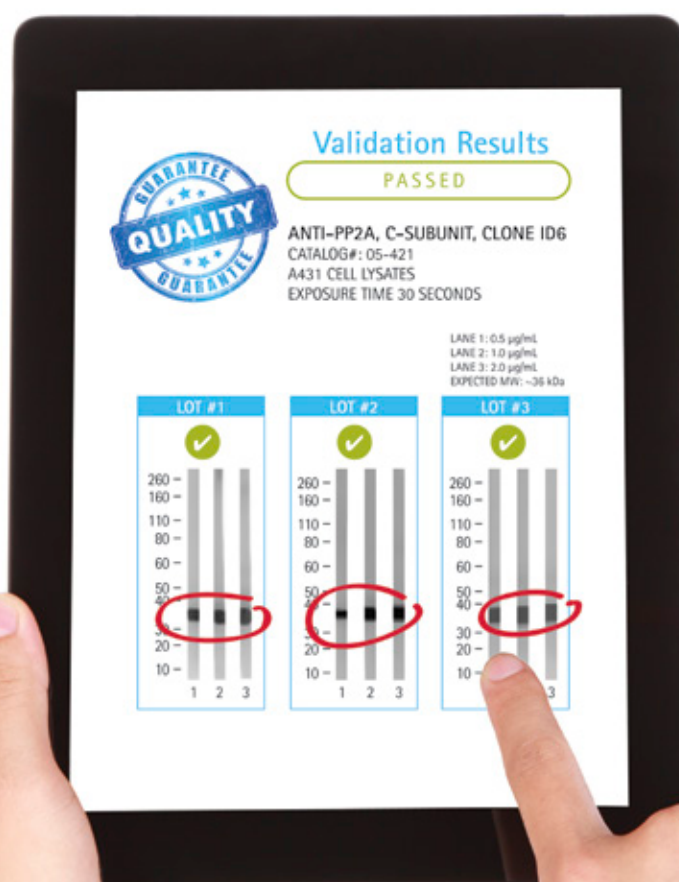
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