

# New products

VOLUME 4 | 2012

ANTIBODIES, ASSAYS, SMALL MOLECULES, INHIBITORS, AND PROTEINS

Neuroscience

Signaling

Epigenetics &  
Gene Regulation

Cell Structure

Stem Cell

Cancer

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

## Wnt/ $\beta$ -Catenin Signaling: Proliferation, Polarity and Pluripotency

The evolutionarily-conserved Wnt signaling pathway is involved in cell proliferation, fate and polarity determination during embryonic development, and migration of cells. Abnormalities in Wnt signaling are reported to promote birth defects, degenerative diseases, and cancer. Wnt genes encode a large family of secreted, cysteine-rich proteins of approximately 350 to 400 amino acids (~40 kDa) that are important in development and maintenance of adult tissues. Nineteen different Wnt proteins have been identified in mammals.

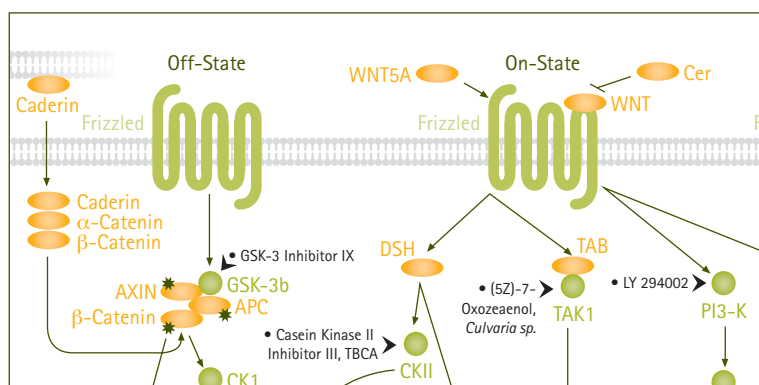
Wnt signaling plays an important role in maintaining stem cells. In adult stem cell differentiation, Wnt signaling controls the maintenance and expansion of precursor populations, whereas in embryonic stem cells Wnt/ $\beta$ -catenin signaling is reported to direct cells toward a mesendodermal lineage. In general, Wnt proteins act to maintain the undifferentiated state of stem cells. For example, TCF3, a Wnt controlled transcription factor, is shown to repress the expression of Nanog, and over-expression of Oct-4 increases  $\beta$ -catenin transcriptional activity.

### FEATURED PRODUCT:

#### InhibitorSelect™ Wnt Signaling Pathway Panel

(Catalogue No. 681666)

Like many developmental signaling networks, Wnt signaling integrates a multitude of inputs and outputs through various distinct nodes and edges; therefore, studying it requires a panel of small molecules, such as The InhibitorSelect™ Wnt Signaling Pathway Inhibitor Panel for accurate, complete perturbation. This panel of 15 carefully selected, potent, cell-permeable small molecules can help determine specific gene and protein functionality along the Wnt pathways.

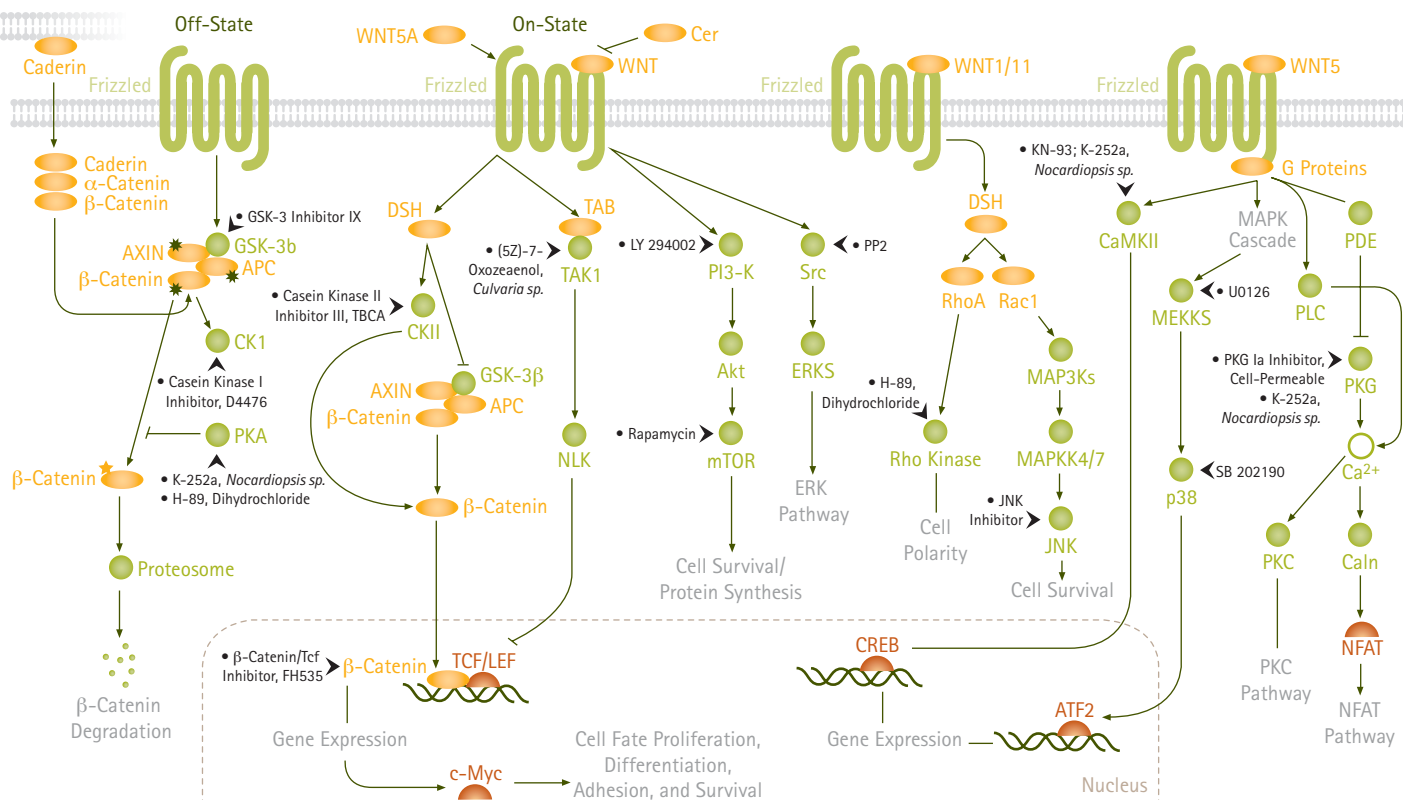


See inside for a full view of this pathway

## InhibitorSelect™ Wnt Signaling Pathway Panel

(Catalogue No. 681666)

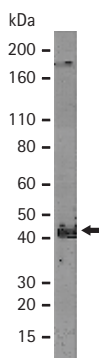
- ★ Phosphorylation  
 ★ Ubiquitin  
 ★ GTP  
 ◀ Calbiochem® Inhibitors



## Anti-Wnt-1 Antibody, clone 20C3.1

Catalogue No. MABS95

Wnt-1 was first identified as a proto-oncogene activated by viral insertion in mouse mammary tumors. The Wnt-1 gene encodes a member of a large family of secreted proteins that are cysteine-rich, glycosylated, and poorly soluble. Wnt-1 binds the RYK coreceptor, initiating signaling. The Wnt signaling pathway mediates the levels of cytosolic β-catenin, a multi-functional protein that associates with membrane-bound E-cadherin as well as DNA-binding proteins, such as members of the TCF/LEF family. Additionally, Wnt-1 binds members of the frizzled family of seven transmembrane receptors and plays a role in development of the central nervous system.



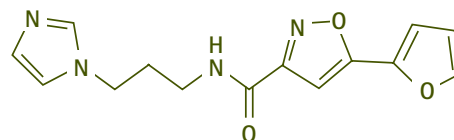
Mouse brain tissue lysate was probed with Anti-Wnt-1, clone 20C3.1 (1:2,000 dilution). Arrow indicates Anti-Wnt-1, clone 20C3.1 (~41 kDa). An uncharacterized band may be observed at ~165 kDa in some lysates.

## Wnt Agonist II, SKL2001

Catalogue No. 681667-25MG

This compound rapidly stimulates Wnt/β-catenin signaling (in the range of 10 - 40 μM in HEK293-hFZ-1-TOPflash reporter cells), promotes osteoblastogenesis and suppresses preadipocyte differentiation of multipotent mesenchymal ST2 cells. It reversibly disrupts axin/β-catenin interaction and upregulates β-catenin levels; the compound mediates β-catenin stabilization by blocking the phosphorylation at residues Ser33/37/Thr41 and Ser45 without affecting CKI and GSK-3α/β activities among a panel of 20 closely related kinases.

Reference: Gwak, J., et al. 2012. Cell Res. 22, 237.



This cell-permeable imidazolyl-isoxazolamide compound is also known as 5-(Furan-2-yl)-N-(3-(1H-imidazol-1-yl)propyl)-1,2-oxazole-3-carboxamide and Wnt Pathway Activator VII.

**Wnt-1, Human Recombinant**

Catalogue No. GF175

Modulate stem cell pluripotency and more with purified Wnt-1. Recombinant human Wnt-1 is a 38.4 kDa, non-glycosylated protein containing 343 amino acid residues. The ED<sub>50</sub> was determined by its ability to enhance BMP-2 induced alkaline phosphatase production by murine

ATDC5 cells. The expected ED<sub>50</sub> for this effect is 1.5 - 2.5 ng/mL in the presence of 200 ng/mL of human BMP-2. Product is endotoxin-free (< 0.1 ng/μg of protein (<1 EU/μg) and greater than 98% pure by SDS-PAGE gel and HPLC analyses.

**NEW PRODUCTS****Wnt Signaling Products**

| Description                                              | Catalogue No. |
|----------------------------------------------------------|---------------|
| <b>Antibodies</b>                                        |               |
| Anti-Wrch-1                                              | ABS99         |
| Anti-Dishevelled-2                                       | AB5972        |
| Anti-NLK                                                 | AB10206       |
| Anti-Protein Wnt-4                                       | AB10408       |
| Anti-Wnt-1, clone 20C3.1                                 | MABS95        |
| Anti-GPR177, clone YJ5                                   | MABS87        |
| Anti-LEF-1, all isoforms, clone 1C3.1D10                 | MAB3750       |
| Anti-β-Catenin, clone 5H10                               | MAB2081       |
| Anti-β-Catenin (C-term), clone EP690Y, rabbit monoclonal | 04-1011       |
| Anti-TCF-4, clone EP2033Y, rabbit monoclonal             | 04-1080       |
| Anti-Axin-1, clone A5                                    | 05-1579       |
| Anti-GSK3, clone 4G-1E                                   | 05-412        |
| Anti-LRP6, C-Terminus                                    | 06-017        |
| Anti-Frizzled 5                                          | 06-756        |
| Anti-Protein Wnt-5a                                      | 06-1058       |
| Anti-DKK2                                                | 06-1087       |
| Anti-Frizzled-4                                          | 07-2166       |
| Anti-Grb10                                               | 07-2182       |
| Anti-Wnt-2, rabbit polyclonal                            | ST1142-100UG  |
| Anti-Wnt-4, rabbit polyclonal                            | ST1143-100UG  |
| Anti-LEF-1 (Ab-1), clone REMB1                           | NA64-100UG    |
| Pl3 Kinase/Akt/GSK3 Pathway Explorer Minipack            | 15-103        |
| <b>Proteins</b>                                          |               |
| WNT-1, Human Recombinant                                 | GF175         |
| Dkk-1, Human Recombinant                                 | GF170         |
| Wnt-3a, recombinant mouse                                | GF160         |
| GST-Axin                                                 | 12-429        |
| β-Catenin, GST                                           | 12-537        |
| GSK3β, active                                            | 14-306        |
| Dkk-1, Mouse, Recombinant                                | 371207        |
| Dkk-2, Mouse, Recombinant                                | 371209        |
| <b>Small Molecules and Inhibitors</b>                    |               |
| InhibitorSelect™ Wnt Signaling Pathway Inhibitor Panel   | 681666-1EA    |
| Wnt Agonist II, SKL2001                                  | 681667-25MG   |
| Wnt Synergist, QS11   CAS 944328-88-5                    | 681668-25MG   |
| Wnt Antagonist I, IWR-1-endo                             | 681669-25MG   |
| Wnt/β-catenin Inhibitor, Cardamonin                      | 681672-2MG    |
| β-Catenin/Tcf Inhibitor, FH535                           | 219330-10MG   |
| β-Catenin/Tcf Inhibitor II, PKF118-310                   | 219331-10MG   |
| Dkk-1 Inhibitor, WAY-262611                              | 317700-10MG   |
| sFRP Inhibitor II                                        | 344301-10MG   |
| GSK-3β Inhibitor XII, TWS119                             | 361554-1MG    |

**Signaling**

| Description                                                                  | Catalogue No.                                                                                 |
|------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| <b>Antibodies</b>                                                            |                                                                                               |
| Anti-Abl interactor 1                                                        | 07-2178                                                                                       |
| Anti-acetylated-Src (Lys430) Antibody                                        | 07-1285                                                                                       |
| Anti-acetylated-Src (Lys7) Antibody                                          | 07-1322                                                                                       |
| Anti-active-β-catenin (anti-ABC)<br>(See publication highlight on next page) | 05-665     |
| Anti-Adipose Triglyceride Lipase (PNPLA2)                                    | ABD66                                                                                         |
| Anti-AKAP 79 Antibody                                                        | ABS102                                                                                        |
| Anti-AMPyated Tyrosine                                                       | ABS184                                                                                        |
| Anti-Apolipoprotein H                                                        | ABS162                                                                                        |
| Anti-Arap3                                                                   | ABS166                                                                                        |
| Anti-B-Raf, clone EP152Y, rabbit monoclonal                                  | 04-328   |
| Anti-c-ErbB2/c-Neu (Ab-5), clone TA-1                                        | MABE320                                                                                       |
| Anti-CHFR Antibody, clone 10                                                 | MABS180                                                                                       |
| Anti-CHIP, clone 2F2.1                                                       | MABS133  |
| Anti-c-K-Ras, clone 234-4.2                                                  | MABS194  |
| Anti-CPT1A                                                                   | ABS65    |
| Anti-CPT2                                                                    | ABS85                                                                                         |
| Anti-Dab1 Antibody, clone EP2248Y, rabbit monoclonal                         | MABS167                                                                                       |
| Anti-Dab2 Antibody, clone EP2297Y, rabbit monoclonal                         | MABS168  |
| Anti-EGFR, clone 225 (Azide-free)                                            | MABF120                                                                                       |
| Anti-EGFR, clone 528 (Azide-free)                                            | MABF119                                                                                       |
| Anti-EGFR, clone E114, rabbit monoclonal                                     | 04-337                                                                                        |
| Anti-erbB-3/HER-3 Antibody, clone 15A2.1                                     | MABS67                                                                                        |
| Anti-ERK3 Antibody, clone EP1720Y, rabbit monoclonal                         | MABS169                                                                                       |
| Anti-ERK5 Antibody, clone EP791Y, rabbit monoclonal                          | MABS170                                                                                       |
| Anti-FABP4 Antibody, clone EPR3579, rabbit monoclonal                        | MABS172                                                                                       |
| Anti-FABP7 Antibody, clone EPR4000, rabbit monoclonal                        | MABS184                                                                                       |
| Anti-Fer                                                                     | ABS68                                                                                         |
| Anti-FGF-2/bFGF                                                              | MABS72                                                                                        |
| Anti-FKBP5                                                                   | ABS227                                                                                        |

 For published studies using this new product, visit: [www.millipore.com](http://www.millipore.com)

 For publications on using these small molecules, visit: [www.merck4biosciences.com](http://www.merck4biosciences.com)

## Signaling (continued)

| Description                                                                                                                               | Catalogue No. |
|-------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| <b>Antibodies</b>                                                                                                                         |               |
|  Anti-Frizzled 5                                         | 06-756        |
|  Anti-Glycerol-3-Phosphate Dehydrogenase 1, clone 4A12.1 | MABS188       |
| Anti-GPR177 Antibody, clone YJ5                                                                                                           | MABS87        |
| Anti-Grb10                                                                                                                                | 07-2182       |
| Anti-GSK3 $\alpha$ , clone EP793Y, rabbit monoclonal                                                                                      | 04-360        |
| Anti-GSK-3 $\alpha/\beta$ , clone 12B11.1                                                                                                 | MABS77        |
| Anti-GSK3, clone Y174, rabbit monoclonal                                                                                                  | 04-361        |
| Anti-HER4/ErbB4, clone E200, rabbit monoclonal                                                                                            | 04-348        |
|  Anti-HMG-CoA reductase                                  | ABS229        |
|  Anti-HPK1                                               | ABS159        |
| Anti-IGF-IR, clone $\alpha$ IR3 (Azide Free)                                                                                              | MABS192       |
| Anti-IKK $\alpha$ , clone Y463, rabbit monoclonal                                                                                         | 04-365        |
| Anti-IKK $\beta$ , clone Y466, rabbit monoclonal                                                                                          | 04-366        |
| Anti-IRAK-4 (N-term), clone Y279, rabbit monoclonal                                                                                       | 04-368        |
| Anti-Lck/p56, clone Y123, rabbit monoclonal                                                                                               | 04-372        |
| Anti-Lefty1                                                                                                                               | ABD73         |
| Anti-MAP Kinase 2/Erk2, clone E460, rabbit monoclonal                                                                                     | 04-349        |
| Anti-MLK1                                                                                                                                 | ABS94         |
|  Anti-modified Citrulline                                | 07-2168       |
|  Anti-mTOR/FRAP, clone 22C2                              | MABS196       |
|  Anti-OX40L (CD252), clone RM134L                        | 04-1470       |
| Anti-Pan-Ras, clone RAS 10                                                                                                                | MABS195       |
| Anti-PD-1, clone RMP1-14                                                                                                                  | 04-1518       |
| Anti-PDE4B1                                                                                                                               | ABS180        |
| Anti-PDE4B2                                                                                                                               | ABS181        |
| Anti-PDGF Receptor $\beta$ (C-term), clone Y92, rabbit monoclonal                                                                         | 04-397        |
| Anti-PFK, clone 16H1.1                                                                                                                    | MABS151       |
| Anti-PFKFB2                                                                                                                               | 07-1530       |
| Anti-phospho Ezh2 (Thr487) Antibody, clone EPR1410, rabbit monoclonal                                                                     | MABS160       |
| Anti-phospho Grb10 (Ser503)                                                                                                               | 07-1519       |
| Anti-phospho PDHE1-A type I (Ser300)                                                                                                      | ABS194        |
| Anti-phospho-EGFR (Tyr1068), clone EP774Y, rabbit monoclonal                                                                              | 04-339        |
| Anti-phospho-EGFR (Tyr1086), clone Y39, rabbit monoclonal                                                                                 | 04-340        |
|  Anti-phospho-FOXO1 (Thr24)                            | 07-2126       |
| Anti-phospho-GRK2 (Ser670), clone 15G11.1                                                                                                 | MABS155       |
|  Anti-phospho-IGF-1R (Tyr1161/Tyr1165/Tyr1166)         | ABE332        |
| Anti-phospho-IRS-2 (Ser388)                                                                                                               | 07-1517       |
| Anti-phospho-Lck (Tyr505)                                                                                                                 | 06-1423       |
| Anti-phospho-LRRK2 (Tyr1491)                                                                                                              | ABS108        |
| Anti-phospho-LRRK2 (Tyr1503)                                                                                                              | ABS107        |
| Anti-phospho-mTOR (Ser2159)                                                                                                               | ABS79         |
| Anti-phospho-Myp1 (Ser507)                                                                                                                | 07-1507       |
| Anti-phospho-NDRG3 (Ser331)                                                                                                               | 07-1521       |
| Anti-phospho-PACSIN1/Syndapin 1 (Ser346)                                                                                                  | ABS39         |
| Anti-phospho-PDGFR $\alpha$ (Tyr754)                                                                                                      | ABS150        |
| Anti-phospho-PFKFB2 (Ser466)                                                                                                              | 07-1531       |
| Anti-phospho-PKD2 (Ser197/Ser200)                                                                                                         | 07-2177       |
| Anti-phospho-SMAD1 (Ser206)                                                                                                               | ABS52         |
|  Anti-phospho-SMAD3 (Ser213)                           | ABS48         |
| Anti-phospho-SMAD3 (Tyr179)                                                                                                               | ABS47         |
| Anti-phospho-SPAK (Ser373) / phospho-OSR1 (Ser325)                                                                                        | 07-2273       |
| Anti-phospho-SRPK2 (Ser494)                                                                                                               | 07-1817       |
| Anti-phospho-STAT3 (Tyr68)                                                                                                                | 07-1347       |
| Anti-phospho-Tie2 (Ser1119)                                                                                                               | ABS219        |
| Anti-phospho-VEGFR2 (Tyr1212), clone 12A10.1                                                                                              | MABS191       |
| Anti-PIPK-Type 1 $\gamma$                                                                                                                 | ABS190        |
| Anti-Plk3                                                                                                                                 | ABS89         |

## ANTIBODIES PUBLICATION HIGHLIGHT:

Merck Millipore has the antibodies you need for the study of Wnt signaling. G.E. Snow and colleagues made use of Merck Millipore antibodies against targets such as Frizzled5 and active- $\beta$ -catenin to study the regulation of Wnt signaling during the differentiation of embryonal carcinoma (EC) cells derived from testicular germ cell tumors (TGCTs). Their findings were presented in a 2009 publication, entitled: **Wnt Pathway reprogramming during human embryonal carcinoma differentiation and potential for therapeutic targeting\***.

The Wnt signaling pathway is important for maintaining pluripotency, and in regulating differentiation. By subjecting the multipotent EC cell line, NT2/D1, to differentiation in response to retinoic acid and measuring gene expression levels as well as inducing repression of certain genes, the authors demonstrated that Wnt signaling is reprogrammed in EC from a pathway promoting pluripotency to one promoting differentiation. In addition, FZD7 repression inhibited EC growth, suggesting a therapeutic potential of targeting the Wnt pathway in TGCTs.

\* Snow, G.E., et al (2009) BMC Cancer, 9:383.

| Description                                                    | Catalogue No.                                                                                 |
|----------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Anti-PORCN Antibody, clone 15G12.1                             | MABS21                                                                                        |
| Anti-PP6R3                                                     | 07-1381                                                                                       |
| Anti-PTP1B, clone FG6-1G                                       | MABS197  |
| Anti-RAB25                                                     | ABS93                                                                                         |
| Anti-RAS-Related protein Ral-A                                 | ABS223                                                                                        |
| Anti-SKAR                                                      | ABS157                                                                                        |
| Anti-ST2A1, clone 4A10.2                                       | MABD32   |
| Anti-STK33                                                     | ABS205                                                                                        |
| Anti-Taf6                                                      | 07-1804                                                                                       |
| Anti-TBK1/NAK (N-term), clone EP611Y, rabbit monoclonal        | 04-387                                                                                        |
| Anti-TDRD1                                                     | 07-2138                                                                                       |
| Anti-Thioredoxin Reductase 2, clone 1C4                        | MABS179                                                                                       |
| Anti-Ubiquitin                                                 | 07-2130                                                                                       |
| Anti-v-Src, clone 327                                          | MABS193                                                                                       |
| Anti-Wnt-1 Antibody, clone 20C3.1                              | MABS95                                                                                        |
| Anti-Wrch-1                                                    | ABS99                                                                                         |
| Anti-YVH1                                                      | ABS224   |
| Milli-Mark® Anti-NF $\kappa$ B p52-FITC                        | FCMAB346F                                                                                     |
| Milli-Mark® Anti-PKC $\alpha$ -FITC Antibody, clone M4         | FCMAB420F                                                                                     |
| Milli-Mark® Anti-Tie2/TEK-PE Antibody, clone Ab3               | FCMAB404PE                                                                                    |
| Milli-Mark™ Anti-GRK 2/3 ( $\beta$ ARK 1/2)-FITC, clone C5/1.1 | FCMAB385F                                                                                     |

 For published studies using this new product, visit: [www.millipore.com](http://www.millipore.com)

 For publications on using these small molecules, visit: [www.merck4biosciences.com](http://www.merck4biosciences.com)

## Signaling (continued)

| Description                                                                                                           | Catalogue No. |
|-----------------------------------------------------------------------------------------------------------------------|---------------|
| Milli-Mark™ Anti-GSK3-FITC Antibody, clone 4G-1E                                                                      | FCMAB386F     |
| Milli-Mark™ Anti-Rac1-FITC Antibody, clone 23A8                                                                       | FCMAB330F     |
| <b>Kits &amp; Assays</b>                                                                                              |               |
| FlowCollect™ Histone H2A.X Phosphorylation Assay Kit                                                                  | FCCS100182    |
| <b>Proteins &amp; Enzymes</b>                                                                                         |               |
| Chloroethyl Ubiquitin (HA-tag)                                                                                        | 03-207        |
| Ubiquitin activating enzyme E1 (His-tag) human recombinant                                                            | 03-232        |
|  <b>Small Molecules and Inhibitors</b> |               |
| 14-3-3 Antagonist I, 2-5                                                                                              | 100081-5MG    |
| 14-3-3 Antagonist II, BV02                                                                                            | 100082-10MG   |
| 15-PGDH Inhibitor                                                                                                     | 100073-10MG   |
| Acidic Mammalian Chitinase Inhibitor, Bisdionin F                                                                     | 112252-5MG    |
| Adenosine Deaminase Inhibitor, DCF   CAS 53910-25-1                                                                   | 116860-10MG   |
| Akt Inhibitor XIX, 3CAI   CAS 28755-03-5                                                                              | 124037-25MG   |
| AMPK Activator VI, RSV314                                                                                             | 171272-10MG   |
| AMPK Signaling Agonist, F17                                                                                           | 171263-5MG    |
| Anaphase-Promoting Complex Inhibitor Negative Control, AAME                                                           | 172103-50MG   |
| Anaphase-Promoting Complex Inhibitor, TAME                                                                            | 172104-50MG   |
| APT1 Inhibitor, palmostatin B                                                                                         | 178501-5MG    |
| ARE Activator, BTZO-1                                                                                                 | 181315-10MG   |
| Atorvastatin, Calcium Salt   CAS 134523-03-8                                                                          | 189291-100MG  |
| β-Catenin/Tcf Inhibitor III, iCRT3                                                                                    | 219332-10MG   |
| BCL6 Inhibitor, 79-6                                                                                                  | 197345-50MG   |
| Berberine Chloride                                                                                                    | 200275-25MG   |
| BMP Inhibitor II, DMH1                                                                                                | 203646-5MG    |
| BX-795                                                                                                                | 204001-10MG   |
| Calcium-activated Chloride Channel Inhibitor, CaCCinh-A01                                                             | 208293-10MG   |
| Cathepsin G Substrate IV, Fluorogenic                                                                                 | 219474-1MG    |
| Cdc25 Inhibitor IV, NSC 95397                                                                                         | 217694-10MG   |
| Cdc2-Like Kinase Inhibitor IV, KH-CB19                                                                                | 219511-10MG   |
| Cdk4 Inhibitor V                                                                                                      | 219503-5MG    |
| Ceramide Kinase Inhibitor II, NVP-231                                                                                 | 219493-10MG   |
| CXCR2 antagonist, Cpd 19                                                                                              | 239819-2MG    |
| Daptomycin, Streptomyces sp.                                                                                          | 268320-5MG    |
| Dynamin Inhibitor IV, Hydroxy-Dynasore                                                                                | 324413-10MG   |
| Fatty Acid Synthase Inhibitor, Cpd 10v                                                                                | 341326-5MG    |
| Forskolin, Coleus forskohlii in DMSO                                                                                  | 344282-5MG    |
| Foxo1 Inhibitor, AS1842856                                                                                            | 344355-10MG   |
| Glyphosine                                                                                                            | 356790-5GM    |
| GPR119 Agonist, AS1269574                                                                                             | 371724-10MG   |
| GPR43 (FFA2) Agonist                                                                                                  | 371725-10MG   |
| Heat Shock Factor 1 Inhibitor, KRIBB11 (HSF1)                                                                         | 385570-10MG   |
| ICMT Inhibitor                                                                                                        | 420350-10MG   |
| Importazole                                                                                                           | 401105-10MG   |
| InhibitorSelect™ 96-Well Tyrosine Kinase and Phosphatase Inhibitor Library IV                                         | 539747-1EA    |
| InSolution™ Akt Inhibitor V, Triciribine   CAS 35943-35-2                                                             | 124038-2MG    |

| Description                                                 | Catalogue No. |
|-------------------------------------------------------------|---------------|
| InSolution™ AMPK Inhibitor, Compound C, 2HCl                | 171264-2MG    |
| InSolution™ Chk2 Inhibitor II   CAS 516480-79-8             | 220491-5MG    |
| InSolution™ ERK Inhibitor II, FR180204                      | 328010-500UG  |
| InSolution™ MG-132 in EtOH, ≥95% by HPLC (MG132)            | 474788-10MG   |
| InSolution™ PP1 Analog   CAS 221243-82-9                    | 529605-1MG    |
| InSolution™ PTP1B Inhibitor                                 | 539749-2MG    |
| InSolution™ Rac1 Inhibitor II, Z62954982   CAS 1090893-12-1 | 553512-10MG   |
| InSolution™ RSK Inhibitor, SL0101                           | 559292-500UG  |
| InSolution™ Simvastatin, Sodium Salt                        | 567022-5MG    |
| InSolution™ Src Inhibitor, PP1                              | 539571-5MG    |
| InSolution™ U0126   CAS 109511-58-2                         | 662009-5MG    |
| Insulin Expression Inducer, BRD7389   CAS 376382-11-5       | 203709-10MG   |
| Interferon-α-IFNα-R Interaction Inhibitor                   | 407325-25MG   |
| JNK Inhibitor XVI, JNK-IN-8                                 | 420150-10MG   |
| L-α-lysophosphatidylinositol Sodium Salt                    | 440153-1MG    |
| MDM2 E3 Ligase Inhibitor III, MEL23                         | 373227-10MG   |
| MG-132, ≥95% by HPLC                                        | 474787-10MG   |
| MIF Antagonist IV, RDR 03785                                | 475847-10MG   |
| mitoNEET InhibitorNL-1, Thiazolidinedione                   | 475825-10MG   |
| MKLP-2 Inhibitor, Paprotrain                                | 512533-25MG   |
| MNK1/2 Inhibitor II, ETP-45835                              | 454862-10MG   |
| Niclosamide                                                 | 481909-1GM    |
| Nodinitib-1                                                 | 488004-10MG   |
| NOX Inhibitor III, VAS2870                                  | 492000-10MG   |
| NOX1 Inhibitor, ML171   CAS 6631-94-3                       | 492002-10MG   |
| Nrf2 Activator                                              | 492040-25MG   |
| Ochratoxin A                                                | 494128-1MG    |
| OSC Inhibitor, Ro 48-8071                                   | 499635-10MG   |
| p38 MAP Kinase Inhibitor X, BIRB 796                        | 506172-10MG   |
| p97 ATPase Activity Inhibitor, DBeQ                         | 506190-10MG   |
| Phosphatase Inhibitor Cocktail Set II, Lyophilized          | 524636-1SET   |
| Phosphatase Inhibitor Cocktail Set IV, Lyophilized          | 524633-1ML    |
| PI 3-K/mTOR Inhibitor III, PKI-179                          | 526561-5MG    |
| PI 3-K/PDK-1 Inhibitor, NVP-BAG956                          | 528121-5MG    |
| PI 3-Kδ/γ Inhibitor IX, SW-14                               | 526560-5MG    |
| PIP3 Antagonist II, DM-PIT-1   CAS 701947-53-7              | 524619-25MG   |
| PIP3 Antagonist, PITenin-7                                  | 524618-10MG   |
| PON1 Activator, ZNPA                                        | 529505-10MG   |
| PP1 Analog V, 2,3-DMB-PP1   CAS 956026-24-7                 | 529599-10MG   |
| PPARβ/δ Antagonist, GSK3787                                 | 516567-10MG   |
| PPARβ/δ Antagonist, PT-S58 (PPARb/d)                        | 516569-10MG   |
| PPARβ/δ Inverse Agonist (PPARb/d)                           | 516568-10MG   |
| Pyruvate Kinase Activator                                   | 550601-25MG   |
| REV-ERBα Agonist, GSK4112                                   | 554716-10MG   |
| REV-ERBα Antagonist, SR8278                                 | 554718-5MG    |
| RSK Inhibitor II                                            | 559286-5MG    |
| S1P4 Receptor Antagonist, CYM50358                          | 567737-5MG    |
| S6K1 Inhibitor II, DG2                                      | 559274-10MG   |



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## Signaling (continued)

| Description                                                                                                                         | Catalogue No. |
|-------------------------------------------------------------------------------------------------------------------------------------|---------------|
|  <b>Small Molecules and Inhibitors (continued)</b> |               |
| S6K1 Inhibitor, PF-4708671                                                                                                          | 559273-10MG   |
| SHIP1 Inhibitor, 3AC                                                                                                                | 565835-10MG   |
| SREBP Processing Inhibitor, Betulin                                                                                                 | 569371-250MG  |
| Stat3 Inhibitor XIII, C188-9                                                                                                        | 573128-10MG   |
| STAT5 inhibitor III, Pimozide                                                                                                       | 573110-100MG  |
| Syk Inhibitor V                                                                                                                     | 574715-2MG    |
| TMEM16A Activator, Eact                                                                                                             | 613550-10MG   |
| TMEM16A Inhibitor, T16Ainh-A01                                                                                                      | 613551-5MG    |
| TRPV4 Antagonist I, RN-1734                                                                                                         | 616520-10MG   |
| TRPV4 Antagonist II, HC-067047                                                                                                      | 616521-10MG   |
| USP14-Proteasome Inhibitor, IU1                                                                                                     | 662210-10MG   |
| VEGFR Tyrosine Kinase Inhibitor VI, AAL-993                                                                                         | 676504-10MG   |
| VEGFR2 Kinase Inhibitor VII, SKLB1002                                                                                               | 676505-10MG   |
| Wnt Agonist II, SKL2001                                                                                                             | 681667-25MG   |

## PUBLICATION HIGHLIGHT ON NEW INHIBITORS:

Merck Millipore's newly released SHIP1 Inhibitor, 3AC (Catalogue No. 565835) enhances granulocyte production and reduces the growth and survival of SHIP1-dependent leukemia cell lines.

Brooks and colleagues from the Department of Microbiology and Immunology at the State University of New York Upstate Medical University, Syracuse showed that 3AC significantly increased the number of myeloid immunoregulatory cells and enhanced granulocyte production. They showed this compound to be highly selective for SHIP1, and it did not affect SHIP2 and PTEN activities\*.

\*Brooks R et al. SHIP1 inhibition increases immunoregulatory capacity and triggers apoptosis of hematopoietic cancer cells. (2010) J. Immunology 184, 3582-3589.

## Cancer

| Description                                                                                                             | Catalogue No. |
|-------------------------------------------------------------------------------------------------------------------------|---------------|
| <b>Antibodies</b>                                                                                                       |               |
| Anti-Argininosuccinate synthase                                                                                         | ABC108        |
| Anti-Bcl-2 interacting killer (BIK)                                                                                     | ABC53         |
| Anti-Bcl-1, clone 9A1.1                                                                                                 | MABC34        |
|  Anti-BRCA1, clone MS110             | MABC199       |
|  Anti-ELMO1                          | ABC110        |
|  Anti-Hyaluronan synthase 3          | ABC100        |
|  Anti-p53 (wild type), clone PAb1620 | MABE339       |
|  Anti-p53, clone PAb421              | MABE283       |
| Anti-Phospho-Src (Tyr419)                                                                                               | ABC105        |
| Anti-phospho-ULK1/ATG1 (Ser758)                                                                                         | ABC112        |
| Anti-RRM2                                                                                                               | ABC106        |
| Anti-S1PR2/EDG5, clone 6E8.1                                                                                            | MABC95        |
| Anti-S1PR4/EDG6, clone 16B9.1                                                                                           | MABC97        |
| Anti-Sphingosine 1-phosphate receptor 1 (S1P1), clone 8B7.1                                                             | MABC94        |
|  Anti-Stabilin-2, clone mAb-174      | MABC76        |
| Anti-THAP11 (Ronin)                                                                                                     | ABD75         |
| Anti-TNF receptor-associated factor 1 (TRAF1), clone 11B2.2                                                             | MABC72        |
| Anti-TRAIL-R2 (CD262), clone MD5-1                                                                                      | MABC13        |
| Anti-USP18 (UBP43), clone 1C3.1                                                                                         | MABC113       |

| Description                                        | Catalogue No. |
|----------------------------------------------------|---------------|
| <b>Kits &amp; Assays</b>                           |               |
| Autophagy Detection Reagent Pack                   | CF200097      |
| FlowCelect™ Autophagy LC3 Antibody-based Assay Kit | FCCH100171    |
| FlowCelect™ RFP-LC3 Reporter Autophagy Assay Kit   | FCCH100183    |
| <b>Small Molecules and Inhibitors</b>              |               |
| 17b-Hydroxysteroid Dehydrogenase type-3 Inhibitor  | 385585-10MG   |
| Amifostine   CAS 20537-88-6                        | 129874-50MG   |
| Aromatase Inhibitor II, Letrozole                  | 182541-25MG   |
| ATR/CDK Inhibitor, NU6027   CAS 220036-08-8        | 189299-10MG   |
| Ceranib-2                                          | 219556-10MG   |
| c-Myc Inhibitor III, Mycro2                        | 475965-10MG   |
| DMBO                                               | 317201-10MG   |
| DUB Inhibitor IV, b-AP15                           | 662140-10MG   |
| Dynamin Inhibitor V, 34-2                          | 324414-10MG   |
| eIF2-GTP-tRNAiMetTernaryComplexInhib, NCPdCPU      | 324889-10MG   |
| eIF2-GTP-tRNAiMetTernaryComplexInhib, BTdCPU       | 324892-10MG   |
| Ezrin Inhibitor, NSC668394                         | 341216-10MG   |
| Ire17α RNase Inhibitor, STF-083010                 | 412510-10MG   |
| MetAP2 Inhibitor, A832234                          | 654271-2MG    |
| MPS1 Inhibitor, NMS-P715                           | 475949-5MG    |
| Piperlongumine                                     | 528124-25MG   |
| Polo-like Kinase Inhibitor V, Poloxin              | 528884-5MG    |
| Prodigiosin <i>Serratia marcescens</i>             | 529685-200UG  |
| SOD1 Inhibitor, LCS-1                              | 567417-10MG   |
| Spautin-1                                          | 567569-10MG   |
| Survivin Antagonist, S12                           | 574661-10MG   |
| Wnt Pathway Inhibitor XII, 21H7                    | 681679-10MG   |

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## Epigenetics

| Description                                                                                                                                            | Catalogue No. |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| <b>Antibodies</b>                                                                                                                                      |               |
| Anti-acetyl (Lys26) phospho (Ser27) Histone H1.4                                                                                                       | 06-1372       |
| Anti-acetyl Histone H3 (Lys4)                                                                                                                          | ABE223        |
| Anti-acetyl-c-Myc (Lys148)                                                                                                                             | ABE25         |
| Anti-acetyl-c-Myc (Lys157)                                                                                                                             | ABE27         |
| Anti-acetyl-c-Myc (Lys323)                                                                                                                             | ABE26         |
| Anti-acetyl-Histone H2B (Lys120)                                                                                                                       | ABE159        |
| Anti-acetyl-Histone H2B (Lys24)                                                                                                                        | ABE269        |
|  Anti-acetyl-Histone H4 (Lys77)                                         | ABE186        |
| Anti-Ago2, clone 11A9                                                                                                                                  | MABE253       |
| Anti-BPTF                                                                                                                                              | ABE24         |
| Anti-c-ErbB2/c-Neu, clone 3B5                                                                                                                          | MABE330       |
|  Anti-c-ErbB2/c-Neu, clone 9G6                                          | MABE332       |
|  Anti-c-Fos, clone 2G9C3                                                | MABE329       |
|  Anti-CHD5, clone 5A10                                                  | MABE133       |
|  Anti-dimethyl-phospho Histone H3 (Lys9/27)/(Ser10/28), clone 51TA-2H12 | MABE241       |
| Anti-Dnmt3b, clone D3B2-2C1                                                                                                                            | MABE305       |
|  Anti-FOXO3a/FKHRL1, clone 15F7.2                                       | 05-1587       |
| Anti-Gdown1                                                                                                                                            | ABE23         |
|  Anti-Histone H2A                                                       | ABE327        |
| Anti-ICBP90/UHRF1, clone 1RC1C-10                                                                                                                      | MABE308       |
|  Anti-Liver receptor homolog-1, clone 1LRH-2E1                          | MABE215       |
|  Anti-MDM2, clone 4B2C1.11                                              | MABE331       |
|  Anti-MDM2, clone IF2                                                   | MABE340       |
| Anti-Microphthalmia (Mi), clone C5                                                                                                                     | MAB3747-I     |
| Anti-Musashi-1, clone 7B11.1                                                                                                                           | MABE268       |
|  Anti-MyoD, clone 5F11                                                | MABE132       |
|  Anti-N-Myc, clone NCM II 100                                         | MABE333       |
|  Anti-p21WAF1, clone EA10                                             | MABE325       |
|  Anti-p53 (wild type), clone PAb1620                                  | MABE339       |
| Anti-p53, clone PAb421                                                                                                                                 | MABE283       |
| Anti-Pax3, clone 1A7.1                                                                                                                                 | MABD65        |
| Anti-phospho-Histone H1 (Thr165)                                                                                                                       | 06-1370       |
|  Anti-phospho-PDCD4 (Ser67)                                           | 07-1830       |
| Anti-Protein-arginine deiminase 4, clone 10F1                                                                                                          | MABE254       |
| Anti-Topoisomerase II, clone SWT3D1                                                                                                                    | MABE287       |
| Anti-trimethyl-Histone H3 (Lys36)                                                                                                                      | ABE435        |
|  ChIPAb+™ FOXA1                                                       | 17-10267      |
| ChIPAb+™ Phospho-Histone H3 (Ser28)                                                                                                                    | 17-10269      |
| RIPAb+™ Ago1                                                                                                                                           | 03-249        |
| RIPAb+™ Ago3                                                                                                                                           | 03-250        |
| RIPAb+™ IGF2BP2                                                                                                                                        | 03-251        |
| <b>Kits &amp; Assays</b>                                                                                                                               |               |
| AbSurance™ Complete Core Histone Antibody Specificity Array                                                                                            | 16-668        |
| AbSurance™ Histone H2A, H2B, H4 Antibody Specificity Array                                                                                             | 16-665        |
| AbSurance™ Histone H3 Antibody Specificity Array                                                                                                       | 16-667        |
| CpGenome™ 5-mC and 5-hmC DNA Standard Set                                                                                                              | S8005         |
| CpGenome™ Human Methylated & Non-Methylated DNA Standard Set                                                                                           | S8001         |
| CpGenome™ Human Methylated DNA Standard                                                                                                                | S8001M        |
| CpGenome™ Human Non-Methylated DNA Standard                                                                                                            | S8001U        |
| CpGenome™ Universal Methylated Mouse DNA Standard                                                                                                      | S8000         |

| Description                                                                                                               | Catalogue No. |
|---------------------------------------------------------------------------------------------------------------------------|---------------|
| <b>Proteins &amp; Enzymes</b>                                                                                             |               |
| CBP (catalytic domain) human recombinant                                                                                  | 03-189        |
| HDAC3/NCOR1 complex human recombinant                                                                                     | 03-227        |
| HDAC6 (His-tag) human recombinant                                                                                         | 03-226        |
| Histone H2B human recombinant                                                                                             | 03-185        |
| LSD1 human recombinant                                                                                                    | 03-229        |
| PCAF human recombinant                                                                                                    | 03-187        |
| SET7/9 human recombinant                                                                                                  | 03-209        |
| <b>Small Molecules and Inhibitors</b>  |               |
| CARM1 Inhibitor                                                                                                           | 217531-10MG   |
| HMTase Inhibitor IV, UNC0638                                                                                              | 382192-2MG    |
| InSolution™ 5-Aza-2'-Deoxycytidine (Decitabine)   CAS 2353-33-5                                                           | 189826-10MG   |
| Ischemin                                                                                                                  | 410960-25MG   |
| SRT1720   CAS 925434-55-5                                                                                                 | 567860-10MG   |

## Cell Structure

| Description                                                                                                                 | Catalogue No.                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| <b>Antibodies</b>                                                                                                           |                                                                                               |
| Anti-Abl (c-, v-, Bcr-), clone 24-21                                                                                        | MABT203                                                                                       |
| Anti-ADAP1                                                                                                                  | ABS179     |
| Anti-Ahi-1 (Jouberin), clone C-mAh1-1 M5                                                                                    | MABT138                                                                                       |
| Anti-a-tubulin (DM1A)                                                                                                       | CP06                                                                                          |
| Anti-Calreticulin, clone 16B11.1                                                                                            | MABT217  |
| Anti-Chitinase-3-like protein 1 (YKL-40), clone mAY                                                                         | MABC196                                                                                       |
| Anti-Collagen Type I                                                                                                        | ABT123                                                                                        |
| Anti-LYVE-1, clone 11A9.1                                                                                                   | MABC130                                                                                       |
| Anti-Myosin 2, clone 5B11.1                                                                                                 | MABT25                                                                                        |
| Anti-Profilin-1                                                                                                             | ABT132                                                                                        |
| Anti-PTRF/cavin-1                                                                                                           | ABT131                                                                                        |
| Anti-Titin (N-terminal/Z-domain), clone 17D11.1                                                                             | MABT75                                                                                        |
| Anti-VASA (DDX4)                                                                                                            | MABD46                                                                                        |
| <b>Small Molecules and Inhibitors</b>  |                                                                                               |
| Dynamin Inhibitor V, 34-2                                                                                                   | 324414-10MG                                                                                   |

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## NEW PRODUCTS

## Neuroscience

| Description                                                     | Catalogue No. |
|-----------------------------------------------------------------|---------------|
| <b>Antibodies</b>                                               |               |
| Anti-Amyloid, $\beta$ 1-40, $\alpha\beta$                       | ABN240        |
| Anti-ARMS2                                                      | ABN160        |
| Anti-CHL1, clone BB13.13                                        | MABN299       |
| Anti-Disks large homolog 1 (DLG1), clone B7-1                   | MABN249       |
| Anti-GABA(A) receptor subunit $\gamma$ -2, clone 10F10-C1-B8    | MABN263       |
| Anti-GAD65                                                      | ABN101        |
| Anti-GAD67, clone 1G10.2, Biotin Conjugate                      | MAB5406B      |
| Anti-Galactocerebroside, clone mGalC, Alexa Fluor®488 conjugate | MAB342A4      |
| Anti-GLT1 (N-terminus)                                          | ABN102        |
| Anti-Glucagon (non-Oxyntomodulin), clone 12D4.14.11             | MABN330       |
| Anti-Glucagon, clone 13D11.33                                   | MABN238       |
| Anti-MAP2, clone AP20, Biotin Conjugated                        | MAB3418B      |
| Anti-Nestin, Human                                              | ABD69         |
| Anti-Nestin, clone 10C2, Alexa Fluor® 488 conjugate             | MAB5326A4     |
| Anti-Nestin, clone 10C2, Cy3 conjugate                          | MAB5326C3     |
| Anti-Nestin, clone rat-401, Cy3 conjugate                       | MAB353C3      |
| Anti-NeuN purified                                              | ABN90P        |
| Anti-NG2 Chondroitin Sulfate Proteoglycan, Biotin Conjugate     | AB5320B       |
| Anti-NG2, clone 132.39, Alexa Fluor®488 Conjugate               | MAB5384A4     |
| Anti-REM 2 (GTP-binding protein)                                | ABD37         |
| Anti-RGS11 (C-terminus)                                         | ABN111        |
| Anti-ROBO1, clone 7E3.1                                         | MABN121       |
| Anti-Solute carrier family 17 member 9 (VNUT)                   | ABN110        |
| Anti-Tau-tubulin kinase 2 (TTBK2)                               | ABN103        |
| Anti-TFG                                                        | ABN180        |

| Description                                                                 | Catalogue No. |
|-----------------------------------------------------------------------------|---------------|
| <b>Kits &amp; Assays</b>                                                    |               |
| AXIS™ Axon Isolation Device, 150 $\mu$ m, Plasma Bonded                     | AX15005PBC    |
| AXIS™ Axon Isolation Device, 450 $\mu$ m, Plasma Bonded Tissue Culture Dish | AX45005PBC    |
| AXIS™ Axon Isolation Device, 500 $\mu$ m, Plasma Bonded Tissue Culture Dish | AX50005PBC    |
| <b>Small Molecules and Inhibitors</b>                                       |               |
| 3-Nitropropionic acid                                                       | 164603-50MG   |
| Bexarotene                                                                  | 200499-50MG   |
| Kir1.1 Inhibitor, VU591                                                     | 422682-5MG    |
| Kir2.1 Inhibitor, ML133                                                     | 422689-5MG    |
| MARK/Par-1 Activity Inhibitor, 39621                                        | 454870-10MG   |
| Neuronal Differentiation Inducer IV                                         | 480746-5MG    |
| NF- $\kappa$ B Activation Inhibitor VIII, EVP4593 (NFKB)                    | 481417-5MG    |
| NMDAR2C/2D Inhibitor, DQP-1105 (DQP-1105)                                   | 454586-10MG   |
| nNOS –PSD-95 Interaction Inhibitor, ZL006                                   | 482740-10MG   |
| PDE4D Inhibitor, GEPR-7b                                                    | 524748-5MG    |
| PNU-120596                                                                  | 528201-10MG   |
| TrpA1 Antagonist, HC-030031   CAS 349085-38-7                               | 648485-10MG   |

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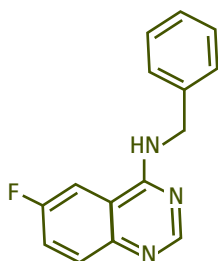
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## NEW CALBIOCHEM® PRODUCT HIGHLIGHTS

## Spautin-1

Catalogue No. 567569

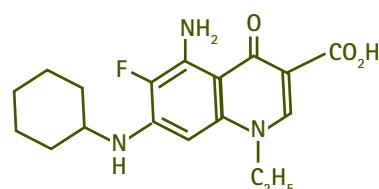
A quinazolin compound that acts as a specific and potent inhibitor of autophagy and promotes Vps34 PI 3-kinase complex degradation by blocking the activity of USP 10 ( $IC_{50}$  = 580 nM) and USP 13 ( $IC_{50}$  = 690 nM) deubiquitinating enzymes. However, it does not affect the lipid kinase activity of Vps34. Also shown to reduce the level of cytoplasmic and nuclear p53.



## Foxo1 Inhibitor, AS1842856

Catalogue No. 344355

A cell-permeable oxodihydroquinoline that preferentially inhibits the transcription activity of Forkhead box O family member Foxo1 ( $IC_{50}$  = 33 nM) over that of the functionally related Foxo3a and Foxo4 (70%, 20%, and 3% inhibition, respectively, in HepG2-based reporter assays; [AS184256] = 100 nM) via direct binding of the active Foxo1, but not the Ser256-phosphorylated/inactive form of Foxo1.





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The screenshot shows the Calbiochem Inhibitors website. The top navigation bar includes links for Login, Register, My Account, and a language selector (English). Below this is a search bar and a list of navigation tabs: Home, Products, Services, Learning Center, Tech Library, Support, and About Us. The main header area displays the Calbiochem Inhibitors logo and a tagline 'A Rock to Life Sciences Research'. The primary navigation tabs are 'Small Molecule Inhibitors', 'Other Modulators', 'Library Panels', and 'Inhibitor Cocktails'. The 'Small Molecule Inhibitors' tab is selected, leading to a sub-navigation bar with categories like Kinases/Phosphatases, Cell Health, Proteases, Neurodegeneration, Cell Cycle Stress, and Other Inhibitors. The main content area is titled 'Kinases/Phosphatases Small Molecule Inhibitors' and contains a 'Spotlight' section on 'Acetylation and Methylation: Epigenetic Modulators of Gene Expression'. A sidebar on the right includes a search bar, a 'Find Primary Antibodies' section, and a 'Related Resources' section. The bottom of the page features a detailed diagram of the AKT (Protein Kinase B) signaling pathway.

View the newest small molecule inhibitors in our portfolio

Find a specific small molecule inhibitor using known chemical structure

Find cell type-specific inhibitors, recommended concentrations and applications

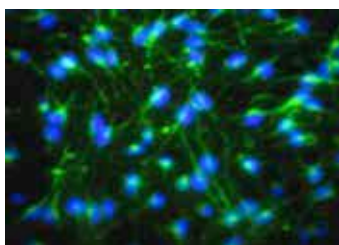
Click each tab to view individual small molecule inhibitors, other modulators, library collections, pathway panels, or protease/phosphatase cocktails

Browse small molecule inhibitors by research areas

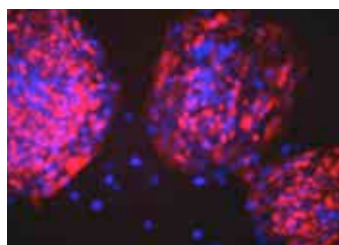
# Illuminate Stem Cell Research

## Skip the Secondary with Fluorescently Conjugated Stem Cell Antibodies

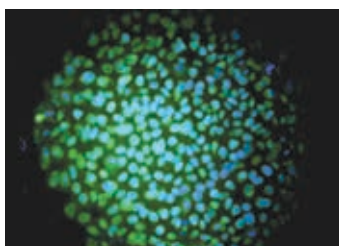
Save time and money without losing specificity by using Merck Millipore's ICC validated Stem Cell Antibodies. A collection of our most commonly used stem cell antibodies are now available in Alexa Fluor®488 or Cy3 conjugated versions that have been validated on stem cells using Immunocytochemical techniques.



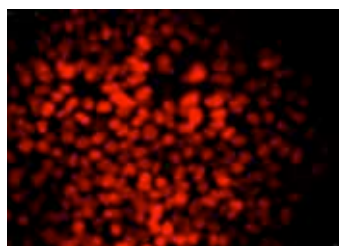
Epifluorescent analysis of Rat Hippocampal Neural Stem Cells (Catalogue No. SCR021) Stained with Anti-Nestin Alexa Fluor® 488 (MAB353A4). Cells Counterstained with DAPI.



Epifluorescent analysis of H9 Human Embryonic Stem Cells. Stained with Anti-TRA-1-81 Cy3 (MAB4381C3). Cells Counterstained with DAPI.



Epifluorescent analysis of H9 Human Embryonic Stem Cells. Stained with Anti-Oct-4 Alexa Fluor® 488 (MAB4401A4). Cells Counterstained with DAPI.



Epifluorescent analysis of H9 Human Embryonic Stem Cells Stained with Anti-NANOG Cy3 (MABD24C3).

### NEW STEM CELL PRODUCT HIGHLIGHT

#### Fluorescent Human ES/iPS Cell Characterization Kit

Catalogue No. SCR078

Kit contains a range of sensitive tools for the phenotypic assessment of the pluripotent status of human ES/iPS cells. Included in the kit is an enzymatic assay to measure alkaline phosphatase activity in the cells along with validated directly conjugated antibodies to pluripotent transcription factors, Oct-4, Sox-2 and Nanog and cell surface epitopes TRA-1-60 and TRA-1-81 to enable rapid immunocytochemical marker analysis. The Dapi nuclear dye is conveniently included to aid in cell quantification.

| Description                                                                                     | Catalogue No. |
|-------------------------------------------------------------------------------------------------|---------------|
| <b>Antibodies</b>                                                                               |               |
| Anti-Nestin, clone 10C2, Alexa Fluor® 488 conjugate                                             | MAB5326A4     |
| Anti-Nestin, clone 10C2, Cy3 conjugate                                                          | MAB5326C3     |
| Anti-Nestin, human                                                                              | ABD69         |
| Anti-Nestin, clone rat-401, Alexa Fluor® 488 conjugate                                          | MAB353A4      |
| Anti-Nestin, clone rat-401, Cy3 conjugate                                                       | MAB353C3      |
| Anti-SSEA1, clone MC-480, Cy3 conjugate                                                         | MAB4301C3     |
| Anti-Oct-4, clone 10H11.2, Alexa Fluor® 488 conjugate                                           | MAB4401A4     |
| Anti-Oct-4, clone 10H11.2, Cy3 conjugate                                                        | MAB4401C3     |
| Anti-OCT-4 [POU5F1], clone 7F9.2, Alexa Fluor® 488 conjugate                                    | MAB4419A4     |
| Anti-OCT-4 [POU5F1], clone 7F9.2, Cy3 conjugate                                                 | MAB4419C3     |
| Anti-NANOG, clone 7F7.1, Alexa Fluor® 488 conjugate                                             | MABD24A4      |
| Anti-NANOG, clone 7F7.1, Cy3 conjugate                                                          | MABD24C3      |
| Anti-SOX-2 Antibody, clone 10H9.1, Alexa Fluor® 488 conjugate                                   | MAB4423A4     |
| Anti-SOX-2 Antibody, clone 10H9.1, Cy3 conjugate                                                | MAB4423C3     |
| Anti-TRA-1-60 Antibody, clone TRA-1-60, Cy3 Conjugate                                           | MAB4360C3     |
| Anti-DMP1, N-terminus, clone 9B6.3                                                              | MABD10        |
| Anti-DPPA-2, clone 6C1.2, Alexa Fluor® 488 conjugate                                            | MAB4356A4     |
| Anti-DPPA-2, clone 6C1.2, Cy3 conjugate                                                         | MAB4356C3     |
| Anti-LIMD1, clone 3F2/C6                                                                        | MABD85        |
| Anti-TRA-1-81 Antibody, clone TRA-1-81, Cy3 Conjugate                                           | MAB4381C3     |
| <b>Kits &amp; Assays</b>                                                                        |               |
| Human iPS Cell Boost Supplement II                                                              | SCM094        |
| Human STEMCCA Cre-Excisable Constitutive Polycistronic (OKS/L-Myc) Lentivirus Reprogramming Kit | SCR548        |
| Fluorescent Human ES/iPS Cell Characterization Kit                                              | SCR078        |
| Dopaminergic Differentiation Growth Factor Sampler                                              | SCR128        |
| <b>Proteins &amp; Enzymes</b>                                                                   |               |
| Activin A, Human Recombinant Animal Free                                                        | GF300         |
| DKK-1, Human Recombinant                                                                        | GF170         |
| EGF, Human Recombinant Animal Free                                                              | GF316         |
| Endostatin, Human Recombinant                                                                   | GF171         |
| GM-CSF, Human Recombinant Animal Free                                                           | GF304         |
| NOGGIN, Human Recombinant                                                                       | GF173         |
| Sonic HedgeHog (Shh), Human Recombinant                                                         | GF174         |
| TGF-α, Human Recombinant Animal Free                                                            | GF313         |
| WNT-1, Human Recombinant                                                                        | GF175         |
| TGF-β-III, Human Recombinant                                                                    | GF176         |
| TGF-β-III, Human Recombinant Animal Free                                                        | GF317         |
| <b>Small Molecules and Inhibitors</b>                                                           |               |
| InSolution™ Cyclopamine, V. californicum                                                        | 239806-5MG    |

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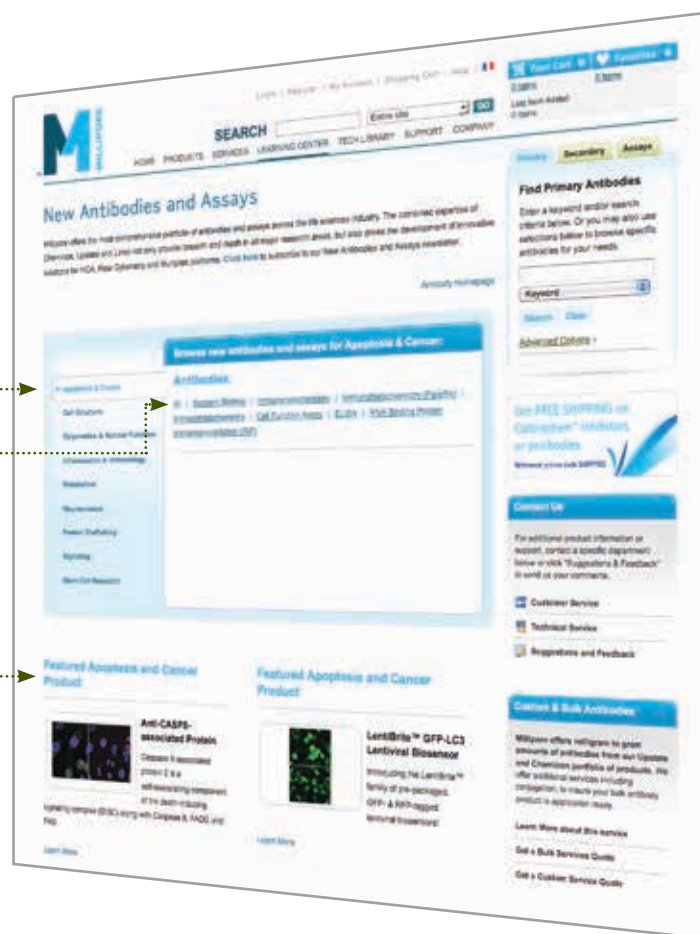
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