Revision 3

Store at -20C

#12071

SPHK1 (D1H1L) Rabbit mAb

Cell Signaling TECHNOLOGY®

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H	Endogenous	45-60	Rabbit IgG	#Q9NYA1	8877

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

SPHK1 (D1H1L) Rabbit mAb recognizes endogenous levels of total SPHK1 protein. This antibody also cross-reacts with a protein of unknown origin at 160 kDa in some cell lines.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro374 of human SPHK1 protein.

Background

Sphingosine kinases (SPHKs) catalyze the phosphorylation of sphingosine to form sphingosine-1-phosphate (S1P), a lipid mediator with both intra- and extracellular functions. Together with other sphingolipid metabolizing enzymes, SPHKs regulate the balance of the lipid mediators, ceramide, sphingosine, and S1P (1-4). Two distinct SPHK isoforms, SPHK1 and SPHK2, have been cloned and characterized (5,6). SPHK1 and SPHK2 are highly conserved and diversely expressed (7,8). The SPHKs are activated by G protein-coupled receptors, receptor tyrosine kinases, immunoglobulin receptors, cytokines, and other stimuli (9-12). The molecular mechanisms by which SPHK1 and SPHK2 are specifically regulated are complex and only partially understood.

Background References

1. Hait, N.C. et al. (2006) *Biochim Biophys Acta* 1758, 2016-26.
2. Xia, P. et al. (2000) *Curr Biol* 10, 1527-30.
3. Hannun, Y.A. et al. (2001) *Biochemistry* 40, 4893-903.
4. Futerman, A.H. and Riezman, H. (2005) *Trends Cell Biol* 15, 312-8.
5. Kohama, T. et al. (1998) *J Biol Chem* 273, 23722-8.
6. Liu, H. et al. (2000) *J Biol Chem* 275, 19513-20.
7. Liu, H. et al. (2002) *Prog Nucleic Acid Res Mol Biol* 71, 493-511.
8. Spiegel, S. and Milstien, S. (2003) *Nat Rev Mol Cell Biol* 4, 397-407.
9. Alemany, R. et al. (2007) *Naunyn Schmiedebergs Arch Pharmacol* 374, 413-28.
10. Saba, J.D. and Hla, T. (2004) *Circ Res* 94, 724-34.
11. Anliker, B. and Chun, J. (2004) *J Biol Chem* 279, 20555-8.
12. Wattenberg, B.W. et al. (2006) *J Lipid Res* 47, 1128-39.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human

Trademarks and Patents

Limited Uses

separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.