



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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**Sphingosine Kinase 1. Rabbit Polyclonal Antibody**  
EC 2.7.1, SK 1, SPK 1, SPHK1, Gene name: SPHK1 or SPHK or SP

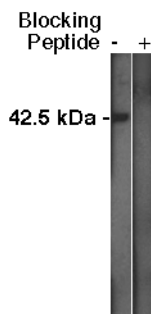
**BACKGROUND**

Sphingosine Kinase 1 (Sphk1) catalyzes the phosphorylation of sphingosine to sphingosine 1-phosphate (S1P), an important signaling molecule with intra- and extracellular functions. Inside the cell S1P acts as a signaling molecule like other sphingolipid metabolites like ceramide and sphingosine. S1P has been implicated in regulating cell differentiation, calcium mobilization from intracellular stores, and apoptosis. The cell surface receptors for S1P are the EDG family of G protein-coupled receptors (S1P Receptors). These receptors couple to multiple G proteins (e.g. S1P<sub>1</sub> couples to Gi whereas S1P<sub>2</sub> and S1P<sub>3</sub> couple to Gq, G13 in addition to Gi) and regulate a extremely wide range of cellular events including cell motility, survival, apoptosis, migration and cell-cell interaction. Important roles for S1P have also been reported in regulation of cardiogenesis, vascular maturation, oocyte survival, immune cell trafficking, cells of the neuronal system and bone cells. S1P levels are regulated by the activity of Sphk (Sphk1 and Sphk2).

**IMMUNOGEN**

Synthetic peptide derived from the C-terminal of human Sphingosine Kinase 1

**Western blot analysis using Sphingosine Kinase 1 antibody at a dilution of 1:400 on MDBK cell lysate (Cat. No. X1007) using Exalalpha's mouse anti-rabbit HRP secondary antibody (Cat. No. X1207M) at 1:75,000.**



**ORDERING INFORMATION**

**CATALOG NUMBER**  
X1627P

**SIZE**  
10 Miniblots  
**FORM**  
Unconjugated

**HOST/CLONE**  
Rabbit

**FORMULATION**  
Provided as ligand affinity purified antibody in phosphate buffered saline with 0.08% sodium azide

**CONCENTRATION**  
See vial for concentration

**ISOTYPE**  
IgG

**APPLICATIONS**  
Western Blot, ELISA

**SPECIES REACTIVITY**  
Human, Rat, Mouse, Bovine

**ACCESSION NUMBER**  
Human Q9NYA1

**POSITIVE CONTROL/TISSUE EXPRESSION**

Madin-Darby Bovine Kidney (MDBK) cell lysate (Cat. No. X1007)

**COMMENTS**

Antibody can be used for Western blotting (1:400 dilution) and ELISA. Other applications not yet tested. Optimal concentration should be evaluated by serial dilutions.

**PURIFICATION**

Ammonium Sulfate Precipitation

**SHIP CONDITIONS**

Ship on dry ice, freeze upon arrival

**STORAGE CUSTOMER**

Product should be stored at -20°C. Aliquot to avoid freeze/thaw cycles

**STABILITY**

Products are stable for one year from purchase when stored properly

**REFERENCES**

1. Kihara A, Ikeda M, Kariya Y, Lee EY, Lee YM, Igarashi Y, Sphingosine-1-phosphate lyase is involved in the differentiation of F9 embryonal carcinoma cells to primitive endoderm. *J. Biol. Chem.* 278 (2003) 14578-14585
2. Choi OH, Kim JH, Kinet JP, Calcium mobilization via sphingosine kinase in signalling by the FcεRI antigen receptor. *Nature* 380 (1996) 634-636
3. Olivera A, Kohama T, Edsall L, Nava V, Cuvillier O, Poulton S, Spiegel S, Sphingosine kinase expression increases intracellular sphingosine-1-phosphate and promotes cell growth and survival. *J. Cell Biol.* 147 (1999) 545-558
4. Chun J, Goetzl EJ, Hla T, Igarashi Y, Lynch KR, Moolenaar W, Pyne S, Tigyi G, International union of pharmacology. XXXIV. Lysophospholipid receptor nomenclature. *Pharmacol. Rev.* 54 (2002) 265-269
5. Hla T, Signaling and biological actions of sphingosine 1-phosphate. *Pharmacol. Res.* 47 (2003) 401-407
6. Gregorius K, Mouritsen S, Elsner HI, Hydrocoating: a new method for coupling biomolecules to solid phases. *J. Immunol. Methods*, 181 (1995) 65-73
7. Zhang JH, Chung TDY, Oldenburg KR, A simple statistical parameter for use in evaluation and validation of high throughput screening assays. *J. Biomol. Screening*, 4 (1999) 67-73
8. Ohotski, J., et al. Expression of sphingosine 1-phosphate receptor 4 and sphingosine kinase 1 is associated with outcome in oestrogen receptor-negative breast cancer. *Br. J. Can.* (2012), 106, 1453-1459

**Product Specific References:**

1. Weigert, A., et al. 'Apoptotic cells promote macrophage survival by releasing the antiapoptotic mediator sphingosine -1-phosphate.' *Blood*, 2006, 108, 1635-1642.

**PRODUCT SPECIFIC REFERENCES**

1. Manikandan, Jayapal, et al, 'Genome-wide gene expression profiling of human mast cells stimulated by IgE or Fc RI- aggregation reveals a complex network of genes involved in inflammatory responses ' *BMC Genomics* 2006, 7, 210, Online only
2. Yang, Jianfei, et al., 'Sphingosine Kinase 1 Is a Negative Regulator of CD4 Th1 Cells ' *The Journal of Immunology* 2005, 175, , 6580-6588