

PRODUCT INFORMATION



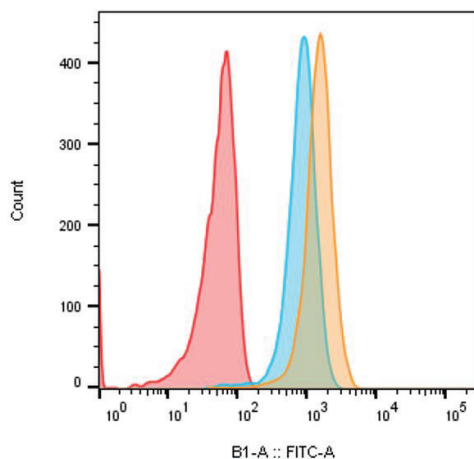
Sphingosine Kinase 1 Polyclonal FITC Antibody

Item No. 10012201

Overview and Properties

Contents:	This vial contains 100 µg of peptide affinity-purified polyclonal antibody conjugated to fluorescein.
Synonym:	SK1, SPK1, SPHK1
Immunogen:	Synthetic peptide from an internal region of human SPHK1
Species Reactivity:	(+) Human, mouse, and pig
Uniprot No.:	Q9NYA1
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS, pH 7.2, with 50% glycerol and 0.02% sodium azide
Host:	Rabbit
Applications:	Flow cytometry (FC) and Western blot (WB); the recommended starting dilution is 1:40 and 1:50, respectively. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image



Red: Secondary control
Blue: SPHK1 (5 µg)
Orange: SPHK1 (10 µg)

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

The primary use of this antibody conjugate is for the detection of SPHK1 in intact cells by direct immunolabeling methods such as flow cytometry or immunofluorescence microscopy. SPHK1 is one of the enzymes involved in sphingolipid metabolism. SPHK1 catalyzes the phosphorylation of sphingosine to sphingosine-1-phosphate. This reaction plays an important role in determining cell proliferation versus cell death.^{1,2} SPHK1 is found in a wide variety of tissues and cell types including kidney, liver, spleen, heart, platelets, and human tumors.³ On a cellular level, it is found in the cytosolic and membrane fractions.⁴ Based on the amino acid sequence, this protein has a molecular weight of approximately 43 kDa. Some reported post translational modifications may explain the shift in band migration to 50 kDa.⁵ NOTE: Multiple isoforms of SPHK1 are known and one is 470 amino acids. This likely explains the 50 kDa band observed.

References

1. Delon, C., Manifava, M., Wood, E., *et al.* Sphingosine kinase 1 is an intracellular effector of phosphatidic acid. *J. Biol. Chem.* **279**(43), 44763-44774 (2004).
2. Merrill, A.H., Jr., Sullards, M.C., Wang, E., *et al.* Sphingolipid metabolism: Roles in signal transduction and disruption by fumonisins. *Environ. Health Perspect.* **109**(suppl. 2), 283-289 (2001).
3. Kim, J.W., Kim, Y.W., Inagaki, Y., *et al.* Synthesis and evaluation of sphingoid analogs as inhibitors of sphingosine kinase. *Bioorg. Med. Chem.* **13**, 3475-3485 (2005).
4. Maceyka, M., Sankala, H., Hait, N.C., *et al.* SphK1 and SphK 2, sphingosine kinase isoenzymes with opposing functions in sphingolipid metabolism. *J. Biol. Chem.* **280**(44), 37118-37129 (2005).
5. Pitson, S.M., D'Andrea, R.J., Vandeleur, L., *et al.* Human sphingosine kinase: Purification, molecular cloning and characterization of the native and recombinant enzymes. *Biochem. J.* **350**, 429-441 (2000).

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