PRODUCT INFORMATION



Spingosine Kinase 1 Polyclonal Antibody

Item No. 10006822

Overview and Properties

Contents:	This vial contains lyophilized peptide affinity-purified antibody.
Synonyms:	SK1, SPHK1, SPK1
Immunogen:	Synthetic peptide from an internal region of human SPHK1
Species Reactivity:	(+) Human, mouse, and pig; other species not tested
Uniprot No.:	Q9NYA1
Form:	Solid
Storage:	-20°C (as supplied)
Stability:	≥3 years
Storage Buffer:	TBS, pH 7.4, with 5 mg/ml BSA when reconstituted in 500 μ l double distilled water
Host:	Rabbit
Applications:	Immunocytochemistry (ICC) and Western blot (WB); the recommended starting dilution for ICC is 1:80 and 1:200 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image



Lane 1: Precision Plus Protein Standard Lane 2: SPHK 1 transfected cell lysates (10 µg) Lane 3: SPHK 1 transfected cell lysates (20 µg) Lane 4: Mouse heart homogenate (25 µg) Lane 5: Mouse heart homogenate (50 μ g)

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

SPHK 1 catalyzes the phosphorylation of sphingosine to sphingosine-1-phosphate. This reaction plays an important role in determining cell proliferation *versus* cell death.^{1,2} SPHK 1 is found in a wide variety of tissues and cell types including kidney, liver, spleen, heart, platelets, and human tumors. On a cellular level, it is found in the cytosolic and membrane fractions.³ Based on the amino acid sequence, this protein has a molecular weight of approximately 43 kDa. The observed band at 50 kDa may be explained by some reported post translational modifications.⁴

References

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- Wang, E., Norred, W.P., Bacon, C.W., *et al.* Inhibition of sphingolipid biosynthesis by fumonisins. Implications for diseases associated with Fusarium moniliforme. *J. Biol. Chem.* 266(22), 14486-14490 (1991).
- 3. 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).
- 4. 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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