

Recombinant Mouse Sphingosine Kinase 2, His-tagged

Cat. No. Sphk2-526M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse Sphingosine kinase 2 (full length) was expressed in a <i>Baculovirus infected Sf9</i> cell expression system with N-terminal His tag. MW=68 kDa.
Species	Mouse
Source	Sf9 Cells
Description	Sphingosine kinase (SphK) is a conserved lipid kinase that catalyzes formation of Sphingosine-1-phosphate (S1P) from the precursor sphingolipid sphingosine. Sphingolipid metabolites, such as ceramide, sphingosine and sphingosine-1-phosphate, are lipid second messengers involved in diverse cellular processes. There are two forms of SphK, SphK1 and SphK2. SphK1 is found in the cytosol of eukaryotic cells, and migrates to the plasma membrane upon activation. SphK2 is localized to the nucleus.
Formulated In	25 mM Tris-HCl, pH 8.0, 100 mM NaCl, 0.05% Tween-20, 50% glycerol, and 3 mM DTT.
Application	Useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling.
Specific Activity	2 U/ug. Sphingosine kinase activity was determined using D-erythrosphingosine and ATP as substrates. A unit of sphingosine kinase activity is defined as the amount of enzyme required to produce 1 pmol of S1P/min. Assay buffer: 50 mM HEPES, pH 7.4, 150 mM NaCl, 5 mM MgCl ₂ , 1 mM DTT, 3 uM Na-orthovanadate, 0.5 mM ATP, 4

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uM D-erythrosphingosine, and 5 ug/ml mouse sphingosine kinase 2.

Purity >70% by SDS-PAGE.

Stability > 6 months at -80°C.

Pathways Calcium signaling pathway; Fc gamma R-mediated phagocytosis; Metabolic pathways; Sphingolipid metabolism; VEGF signaling pathway

Full Length Full L.

GENE INFORMATION

Gene Name [Sphk2 sphingosine kinase 2 \[Mus musculus \]](#)

Synonyms sphingosine kinase 2; C76851; MGC102297; Sphk2; OTTMUSP00000026912; OTTMUSP00000026913; OTTMUSP00000026914

Gene ID [56632](#)

mRNA Refseq [NM_020011](#)

Protein Refseq [NP_064395](#)

UniProt ID [Q9JIA7](#)

Chromosome Location 7 B4

Function ATP binding; D-erythro-sphingosine kinase activity; diacylglycerol kinase activity; kinase activity; nucleotide binding; protein binding; sphinganine kinase activity; transferase activity

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