Recombinant Human Sphingosine Kinase 2, His-tagged

Cat. No. SPHK2-525H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Sphingosine kinase 2 (full length) was expressed in a*Baculovirus infected Sf9*cell expression system with N-terminal His tag. MW=69.5 kDa.
Species	Human
Source	Sf9 Cells
Description	Sphingosine kinase (SphK) is a conserved lipid kinase that catalyzes formation 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	20 U/μg. Sphingosine kinase activity was determined using Derythro-sphingosine 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 MgCl2, 1 mM DTT, 3

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	μM Naorthovanadate, 0.5 mM ATP, 4 μM Derythro-sphingosine, and 0.75 μg/ml sphingosine kinase 2.
Purity	> 80%.
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 [Homo sapiens]
Synonyms	sphingosine kinase 2; SPHK2; sphingosine kinase type 2 isoform; EC 2.7.1.91; SK 2; SPK 2
Gene ID	56848
mRNA Refseq	NM_020126
Protein Refseq	NP_064511
MIM	607092
UniProt ID	Q9NRA0
Chromosome Location	19q13.2

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Function	ATP binding; Ras GTPase binding; diacylglycerol kinase activity; nucleotide binding; protein binding; sphinganine kinase activity; transferase activity

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