

Human SPHK1 / Sphingosine Kinase 1 Protein (His & GST Tag)

Catalog Number: 15679-H20B



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Biological Solution Specialist

General Information

Gene Name Synonym:

SPHK; SPHK1; SPK; 1110006G24Rik; Sk1; Spk1

Protein Construction:

A DNA sequence encoding the human SPHK1 (Q9NYA1-1)(Met1-Leu384) was expressed the N-terminal polyhistidine-tagged GST tag at the N-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

Kinase activity untested

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Met

Molecular Mass:

The secreted recombinant human SPHK1 consists of 621 amino acids and predicts a molecular mass of 70.3 KDa. The apparent molecular mass of the protein is approximately 64 KDa in SDS-PAGE under reducing conditions due to glycosylation.

Formulation:

Supplied as sterile 20mM Tris, 500mM NaCl, 3mM DTT, 10% glycerol, pH 8.0.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

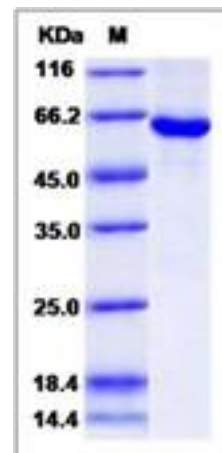
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

SPHK1, also known as sphingosine Kinase 1, catalyzes the phosphorylation of sphingosine to form sphingosine-1-phosphate (S1P). S1P exhibits a broad spectrum of biological activities including cell proliferation, survival, migration, cytoskeletal organization, and morphogenesis. It is a ligand for cell surface G protein-coupled receptors. SPHK 1 is a potential therapeutic target for the control of cancer and inflammation. SPHK1 plays a key role in TNF-alpha signaling and the NF-kappa-B activation pathway important in inflammatory, antiapoptotic, and immune processes.

References

- 1.Kohama T. et al., 1998, J Biol Chem. 273 (37): 23722-8.
- 2.Xia P. et al., 2002, J Biol Chem. 277 (10): 7996-8003.
- 3.Tsukahara T. et al., 2002, Tanpakushitsu Kakusan Koso. 47 (4): 509-13.

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