Human SPHK1 / Sphingosine Kinase 1 Protein

Catalog Number: 15679-HNCB

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

SPHK; SPHK1; SPK

Protein Construction:

A DNA sequence encoding the human SPHK1 (Q9NYA1-1)(Met1-Leu384) was fused with two additional amino acids (Gly & Pro) at the N-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 85 % as determined by SDS-PAGE

Bio Activity:

The specific activity was determined to be ＞500nmol/min/mg using Sphingosine Kinase Substrate as substrate.

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 ℃

Predicted N terminal: Gly

Molecular Mass:

The recombinant human SPHK1 consists of 386 amino acids and has a calculated molecular mass of 42.7 kDa. The recombinant protein migrates as an approximately 46 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Supplied as sterile 20mM Tris, 500mM NaCl, 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:

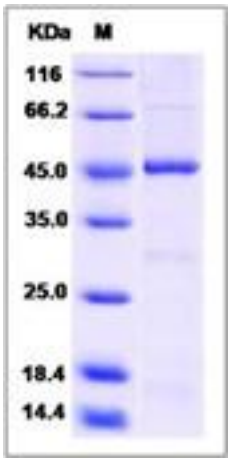
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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.