

Product datasheet for SC325029

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SPHK1 (NM 001142601) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: SPHK1 (NM_001142601) Human Untagged Clone

Tag: Tag Free SPHK1 Symbol: Synonyms: **SPHK**

Vector: pCMV6 series

>NCBI ORF sequence for NM_001142601, the custom clone sequence may differ by one or **Fully Sequenced ORF:**

more nucleotides

ATGGATCCAGCGGGCGCCCCGGGGCGTGCTCCCGCGGCCCTGCCGCGTGCTGGTGCTG CTGAACCCGCGCGCGCAAGGGCAAGGCCTTGCAGCTCTTCCGGAGTCACGTGCAGCCC CTTTTGGCTGAGGCTGAAATCTCCTTCACGCTGATGCTCACTGAGCGGCGGAACCACGCG CGGGAGCTGGTGCGGTCGGAGGAGCTGGGCCGCTGGGACGCTCTGGTGGTCATGTCTGGA GACGGGCTGATGCACGAGGTGGTGAACGGGCTCATGGAGCGGCCTGACTGGGAGACCGCC ATCCAGAAGCCCCTGTGTAGCCTCCCAGCAGGCTCTGGCAACGCGCTGGCAGCTTCCTTG AACCATTATGCTGGCTATGAGCAGGTCACCAATGAAGACCTCCTGACCAACTGCACGCTA TTGCTGTGCCGCCGGCTGCTGTCACCCATGAACCTGCTGTCTCTGCACACGGCTTCGGGG CTGCGCCTCTTCTCTGTGCTCAGCCTGGCCTGGGGCTTCATTGCTGATGTGGACCTAGAG AGTGAGAAGTATCGGCGTCTGGGGGAGATGCGCTTCACTCTGGGCACCTTCCTGCGTCTG GCAGCCCTGCGCACCTACCGCGGCCGACTGGCCTACCTCCCTGTAGGAAGAGTGGGTTCC AAGACACCTGCCTCCCCGTTGTGGTCCAGCAGGGCCCGGTAGATGCACACCTTGTGCCA CTGGAGGAGCCAGTGCCCTCTCACTGGACAGTGGTGCCCGACGAGGACTTTGTGCTAGTC CTGGCACTGCTGCACCTGGGCAGTGAGATGTTTGCTGCACCCATGGGCCGCTGT GCAGCTGGCGTCATGCATCTGTTCTACGTGCGGGCGGGAGTGTCTCGTGCCATGCTGCTG CGCCTCTTCCTGGCCATGGAGAAGGGCAGGCATATGGAGTATGAATGCCCCTACTTGGTA TATGTGCCCGTGGTCGCCTTCCGCTTGGAGCCCAAGGATGGGAAAGGTGTGTTTGCAGTG GATGGGGAATTGATGGTTAGCGAGGCCGTGCAGGGCCAGGTGCACCCAAACTACTTCTGG ATGGTCAGCGGTTGCGTGGAGCCCCCGCCCAGCTGGAAGCCCCAGCAGATGCCACCGCCA

GAAGAGCCCTTA

Restriction Sites: Please inquire ACCN: NM 001142601

Our molecular clone sequence data has been matched to the reference identifier above as a **OTI Disclaimer:**

> point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative

RNA splicing form or single nucleotide polymorphism (SNP).





OTI Annotation:

This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

Components:

The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

- 1. Centrifuge at 5,000xg for 5min.
- 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
- 3. Close the tube and incubate for 10 minutes at room temperature.
- 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid

at the bottom.

5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of

shipping when stored at -20°C.

RefSeq: <u>NM 001142601.1</u>, <u>NP 001136073.1</u>

RefSeq Size: 1839 bp
RefSeq ORF: 1155 bp
Locus ID: 8877
UniProt ID: Q9NYA1
Cytogenetics: 17q25.1

Protein Families: Druggable Genome

Protein Pathways: Calcium signaling pathway, Fc gamma R-mediated phagocytosis, Metabolic pathways,

Sphingolipid metabolism, VEGF signaling pathway

Gene Summary: The protein encoded by this gene catalyzes the phosphorylation of sphingosine to form

sphingosine-1-phosphate (S1P), a lipid mediator with both intra- and extracellular functions. Intracellularly, S1P regulates proliferation and survival, and extracellularly, it is a ligand for cell surface G protein-coupled receptors. This protein, and its product S1P, play a key role in TNF-

alpha signaling and the NF-kappa-B activation pathway important in inflammatory, antiapoptotic, and immune processes. Phosphorylation of this protein alters its catalytic activity and promotes its translocation to the plasma membrane. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Sep 2017] Transcript Variant: This variant (3) contains an alternate in-frame segment in the 5' coding region and uses a downstream start codon, compared to variant 2. Isoform 3 has a shorter N-

terminus, compared to isoform 2. Variants 3, 4 and 5 encode the same isoform (3).