# Recombinant Human SPHK1 Protein, His-tagged

**Cat. No.** SPHK1-091H **Lot. No.** (See product label)

## SPECIFICATION

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| **Product Overview** | Active human recombinant N-terminal His-tagged SPHK1 protein from Sf9 cells. |
| **Species** | Human |
| **Source** | Insect Cells |
| **Description** | 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. |
| **Molecular Mass** | 47.5 kDa |
| **Purity** | ≥80% as determined by SDS-PAGE |
| **Unit Definition** | One unit is defined as the amount of enzyme required to produce 1 nmol of ADP per minute at 25 centigrade in 20 mM Hepes, pH 7.4, containing 50 mM NaCl, 10 mM MgCl2, 1 mM EGTA and 0.02% TritonX-100 and 50μM Sphingosine(d18:1). |
| **Stability** | ≥ 1 year |

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| **Storage** | At -80 centigrade. |
| **Storage Buffer** | 25 mM HEPES, pH 8.0, with 150 mM sodium chloride, 3 mM DTT, 0.05% polysorbate 20, and 25% glycerol |

## GENE INFORMATION

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| **Gene Name** | SPHK1 sphingosine kinase 1 [ Homo sapiens (human) ] |
| **Official Symbol** | SPHK1 |
| **Synonyms** | SPHK1; sphingosine kinase 1; SPHK; sphingosine kinase 1; SK 1; SPK 1; acetyltransferase SPHK1; EC 2.7.1.91 |
| **Gene ID** | 8877 |
| **mRNA Refseq** | NM_182965 |
| **Protein Refseq** | NP_892010 |
| **MIM** | 603730 |
| **UniProt ID** | Q9NYA1 |

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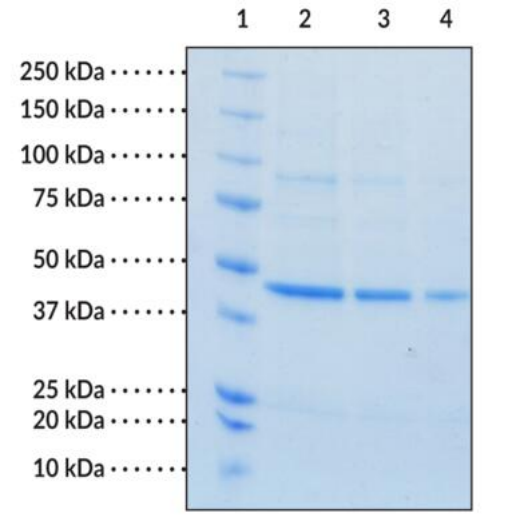
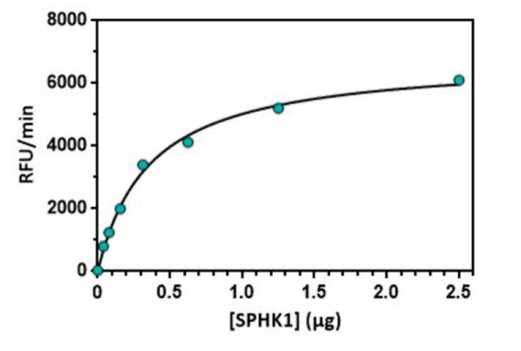
| **SDS-PAGE analysis of SPHK1** |  <br>Lane 1: MW Markers<br>Lane 2: SPHK1 (4 μg)<br>Lane 3: SPHK1 (2 μg)<br>Lane 4: SPHK1 (1 μg) |
| **SPHK1 Activity Assay** |  |

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