

AP05166CP-N**Sphingosine kinase 1 (SPHK1) Control Peptide****Alternate names:**

SPHK, SPK, SPK 1, SPK-1

Quantity:

50 µg

Concentration:

Lot specific

Background:

Sphingosine Kinase 1 (Sphk1) catalyzes the phosphorylation of sphingosine to sphingosine 1-phosphate (S1P), an important signaling molecule with intra- and extracellular functions. Inside the cell S1P acts as a signaling molecule like other sphingolipid metabolites like ceramide and sphingosine. S1P has been implicated in regulating cell differentiation, calcium mobilization from intracellular stores, and apoptosis. The cell surface receptors for S1P are the EDG family of G protein-coupled receptors (S1P Receptors). These receptors couple to multiple G proteins (e.g. S1P1 couples to Gi whereas S1P2 and S1P3 couple to Gq, G13 in addition to Gi) and regulate a extremely wide range of cellular events including cell motility, survival, apoptosis, migration and cell-cell interaction. Important roles for S1P have also been reported in regulation of cardiogenesis, vascular maturation, oocyte survival, immune cell trafficking, cells of the neuronal system and bone cells. S1P levels are regulated by the activity of Sphk (Sphk1 and Sphk2).

Uniprot ID:[Q9NYA1](#)**NCBI:**[NP_001136073](#)**GenElD:**[8877](#)**Format:****State:** Liquid purified peptide**Buffer System:** PBS**Applications:**

Incubate antibody neat with at least a 50 fold stoichiometric excess of blocking peptide at 37°C for 20 minutes (molecular weights of peptide and antibody are ~2.5 kDa and ~160 kDa, respectively). Antibody can then be diluted to a concentration suitable for Western blot. Example: 10 µl or 10 µg of rabbit anti-Sphingosine Kinase 1 is added to 10 µg of blocking peptide for a total volume of 20 µl. The mixture is allowed to incubate for 20 minutes at 37°C prior to dilution in suitable buffer (for Western blot, etc.).

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:

Control peptide for antibody AP05166PU-N only.

Storage:

Can be shipped at ambient temperature. Store (in aliquots) at -20°C only.

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.