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Anti-Sphingosine Kinase 1 (Ser-225), Phosphospecific Antibody

Catalog # AN1970

Product Information

Application	WB
Primary Accession	Q9NYA1
Host	Rabbit
Clonality	Rabbit Polyclonal
Isotype	IgG
Calculated MW	42518

Additional Information

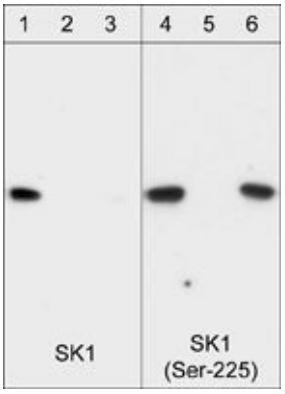
Gene ID	8877
Other Names	SK1, SPHK1, SPK1
Dilution	WB~~1:1000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Anti-Sphingosine Kinase 1 (Ser-225), Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.
Shipping	Blue Ice

Background

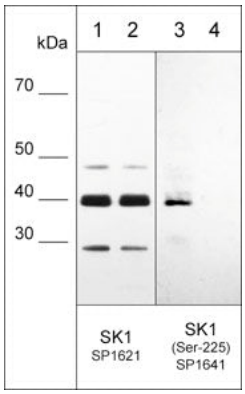
Sphingolipids are metabolized into bioactive products that include ceramide, sphingosine, and sphingosine-1-phosphate (S1P). Sphingosine Kinase (SK) catalyzes the phosphorylation of the lipid sphingosine, creating S1P. S1P subsequently signals through cell surface G protein-coupled receptors, as well as intracellularly, to modulate cell proliferation, survival, motility and differentiation. Two isoforms of SK have been identified, SK1 and SK2. The mRNA for both of these isoforms is widely expressed with SK1 expression highest in brain, heart, kidney, thymus, spleen and lung, while SK2 is highest in kidney and liver. SKs can be activated through growth factor, G protein-coupled, and immunoglobulin receptor signalling. SK1 has been shown to mediate cell growth, prevention of apoptosis, and cellular transformation, and is upregulated in a variety of human tumors. Regulation of SK1 may occur through ERK mediated phosphorylation of Ser-225. This phosphorylation leads to increased activity and translocation to the plasma membrane.

Images

Western blot image of recombinant his-tagged human SK1 protein that was phosphorylated with ERK-2. Blots



were probed with anti-SK1 (Central Region) (SP1621; lanes 1-3) and anti-SK1 (Ser-225) (AN1970; lanes 4-6). Both antibodies were used in the presence of no peptide (lanes 1 & 4), phospho-SK1 (Ser-225) peptide (SX1645; lanes 2 & 5), or unphosphorylated SK1 (Ser-225) peptide (SX1625; lanes 3 & 6).



Western blot of HeLa stimulated with calyculin A (lanes 1-4). The blots were untreated (lane 1 & 3) or treated with lambda phosphatase (lane 2 & 4), then probed with anti-SK1 (Central region) SP1621 (lanes 1 & 2) or anti-SK1 (Ser-225) AN1970 (lanes 3 & 4).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.