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Anti-Sphingosine Kinase 2 (Thr-578), Phosphospecific Antibody

Catalog # AN1973

Product Information

Application	WB
Primary Accession	Q9NRA0
Host	Rabbit
Clonality	Rabbit Polyclonal
Isotype	IgG
Calculated MW	69217

Additional Information

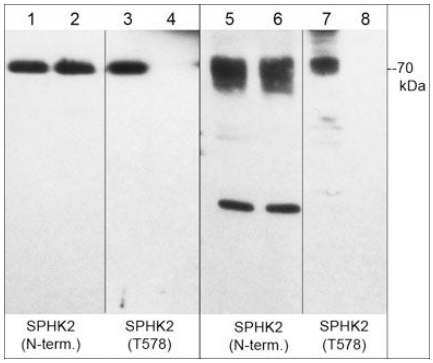
Gene ID	56848
Other Names	SK2, Spk2, Sphk2
Dilution	WB~~1:1000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Anti-Sphingosine Kinase 2 (Thr-578), Phosphospecific Antibody is for research use 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. Regulation of SK1 and SK2 activity may occur through phosphorylation. SK1 is phosphorylated at Ser-225 by ERK leading to increased activity and translocation to the plasma membrane. SK2 is phosphorylated in response to EGF, PKC activators, and phorbol esters. ERK1 can phosphorylate both Ser-351 and Thr-578, and non-phosphorylatable mutants of these sites suppress ERK1-mediated chemotaxis.

Images

Western blot of human recombinant SK2 (lanes 1-4) and HeLa treated with calyculin A (lanes 5-8). The blots were



untreated (lane 1, 3, 5 & 7) or treated with lambda phosphatase (lane 2, 4, 6 & 8), then probed with anti-SK2 (N-terminal region) (lanes 1, 2, 5 & 6) or anti-SK2 (Thr-578) (lanes 3, 4, 7, & 8).

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