

phospho-SK1 (Ser-225) Peptide

Cat. # SX1645

Size 50 µg

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.

References

- Melendez, A.J. et al. (2000) *Gene* 251(1) :19.
Pitson, S.M. et al. (2003) *EMBOJ.* 22(20) :5491.
Pitson, S.M. et al. (2005) *J Exp. Med.* 201(1) :49.

Peptide Sequence:

Phospho-SK1 (Ser-225) synthetic peptide corresponds to amino acids surrounding serine 225 in human SK1. This sequence has 4 amino acid differences from mouse and 5 from rat SK1, and is not homologous to sequences in SK2. The conserved site in rat and mouse SK1 is at serine 224.

Applications:

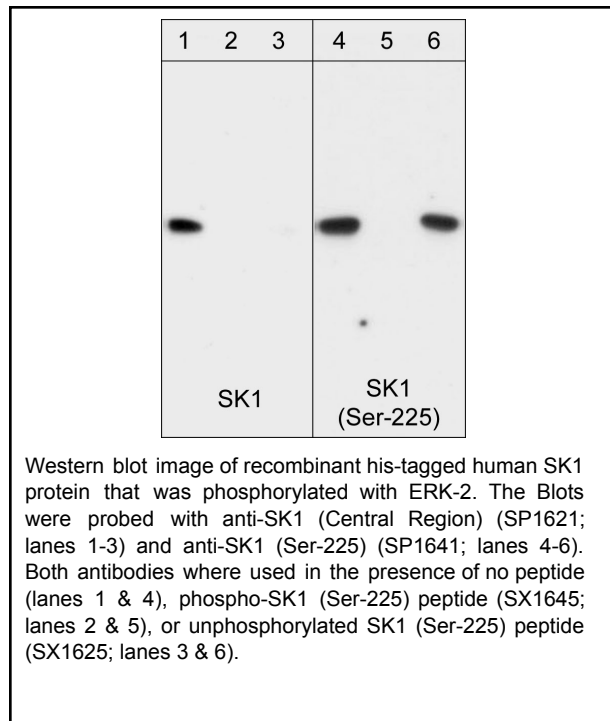
Blocking 1:1,000

ELISA 50 ng/well

End user should determine optimal concentration dependent on the concentration of the antibody. Recommended for blocking antibody reactivity in Western blot and immunocytochemistry. ELISA established in 96-well Nunc immunoplates where peptide was bound to plates for 2 hrs in 0.1 M sodium carbonate buffer, pH 8.5.

Related Products:

- SP1641 Sphingosine Kinase 1 (Ser-225), phospho-specific Rabbit Polyclonal
SX1625 unphosphorylated SK1 (Ser-225) Peptide
SP1621 Sphingosine Kinase 1 (Central Region) Rabbit Polyclonal



Buffer and Storage:

Blocking Peptide is supplied in 50µl phosphate-buffered saline and 0.05% sodium azide.

Store at -20°C. Stable for 1 year.

Specificity:

The peptide is specifically recognized by anti-SK1 (Ser-225) phospho-specific antibody (SP1641) in ELISA, and has been shown to block the reactivity of SP1641 during Western blot. In addition, the peptide is recommended for use in blocking SP1641 reactivity in immunocytochemistry.

FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

www.ecmbiosciences.com
telephone: 859-879-2075
toll-free: 1-800-859-8202
tech: info@ecmbiosciences.com

ECMBiosciences

Rev 11/06