

Rat Sphingosine Kinase 1 Monoclonal Antibody | anti-SPHK1 antibody

Sphingosine Kinase 1 (C-terminal region) M540 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA71706	Rat	Human, Rat, Mouse	Immunocytochemistry, ELISA, Western Blot

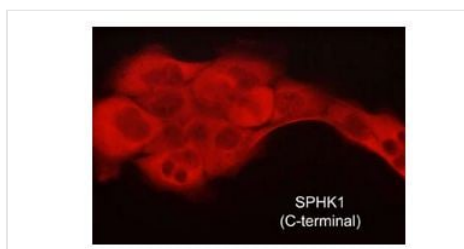
PRODUCT SYNONYMS

Sphingosine Kinase 1; Monoclonal Antibody; Sphingosine Kinase 1 (C-terminal region) M540 Antibody; Sphingosine Kinase 1 (C-terminal region); SPHK1 Cterm1; anti-SPHK1 antibody

PRODUCT SPECIFICATIONS

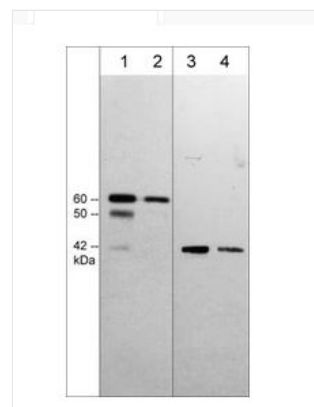
Host	Rat
Reactivity	Human, Rat, Mouse
Clonality	Monoclonal
Clone Number	M540
Specificity	This antibody was affinity purified using SK1 (C-terminal Region) peptide. The purified antibody detects 42kDa* full-length recombinant human and mouse SK1 proteins, as well as detects 42, 50, and 60kDa forms of SK1 in human HeLa cells.
Form/Format	Rat monoclonal, affinity-purified antibody is supplied in 100ul phosphate-buffered saline, 50% glycerol, 1mg/ml BSA, and 0.05% sodium azide.
Applicable Applications for anti-SPHK1 antibody	ICC (Immunocytochemistry), ELISA, WB (Western Blot)
Immunogen	Clone M540 was generated from a SK1 synthetic peptide (coupled to carrier) corresponding to amino acids in the C-terminal region of mouse SK1. This sequence has high homology to human and rat SK1, and is not homologous to sequences in SK2.
Preparation and Storage	Store at -20 degree C. Stable for 1 year.

IMAGES



ICC (Immunocytochemistry)

Immunocytochemical labeling of sphingosine kinase 1 (SPHK1) in paraformaldehyde fixed and NP-40 permeabilized A431 cells. The cells were labeled with rat monoclonal anti-SPHK1 (SM5401). The antibody was detected using goat anti-rat DyLight 594.



WB (Western Blot)

Western blot image of human HeLa cells (lanes 1 & 2) and recombinant his-tagged human SK1 protein (lanes 3 & 4). The blots were probed with rat monoclonal anti-SK1 (C-terminal Region) at 1:250 (lanes 1 & 3) and 1:1000 (lanes 2 & 4).

ADDITIONAL INFORMATION

Related Product Information for anti-SPHK1 antibody	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	Pitson, S.M. et al. (2005) J Exp. Med. 201(1) :49. Pitson, S.M. et al. (2003) EMBOJ. 22(20) :5491. Melendez, A.J. et al. (2000) Gene 251(1) :19.

NCBI AND UNIPROT INFORMATION

NCBI GI #	289191342
NCBI GeneID	20698
NCBI Accession #	NP_001165943.1
NCBI GenBank Nucleotide #	NM_001172472.1
UniProt Accession #	Q8CI15; O88886; Q3U2E3; Q91ZN3
Molecular Weight	42,344 Da
NCBI Official Full Name	sphingosine kinase 1 isoform 2
NCBI Official Synonym Full Names	sphingosine kinase 1
NCBI Official Symbol	Sphk1
NCBI Official Synonym Symbols	Sk1; Spk1; 1110006G24Rik
NCBI Protein Information	sphingosine kinase 1
UniProt Protein Name	Sphingosine kinase 1
UniProt Gene Name	Sphk1
UniProt Synonym Gene Names	SK 1; SPK 1
UniProt Entry Name	SPHK1_MOUSE

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.