10320 Camino Santa Fe Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.622.0609

SPHK1 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7237C

Specification

SPHK1 Antibody (Center) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	Q9NYA1
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit Ig**
Antigen Region	**286-315**

SPHK1 Antibody (Center) - Additional Information

Other Names
Sphingosine kinase 1, SK 1, SPK 1, SPHK1, SPHK, SPK

Target/Specificity
This SPHK1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 286-315 amino acids from the Central region of human SPHK1.

Dilution
WB~~1:2000
IHC-P~~1:25

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

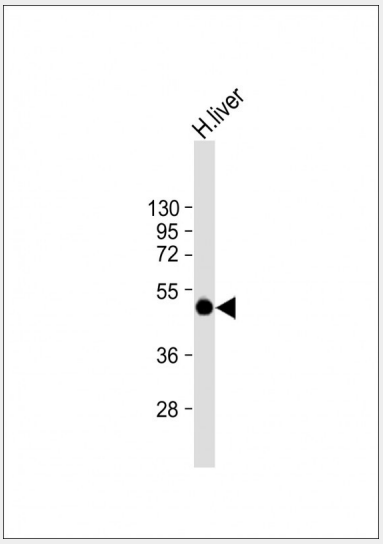
Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
SPHK1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

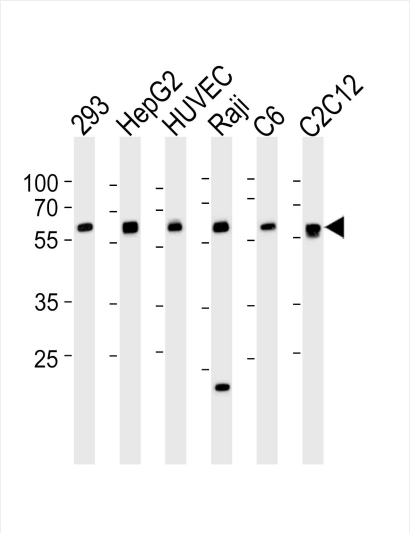
SPHK1 Antibody (Center) - Protein Information

Name SPHK1 (HGNC:11240)

Function
Catalyzes the phosphorylation of sphingosine



Anti-SPHK1 Antibody (Center) at 1:2000 dilution + human liver lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 43 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

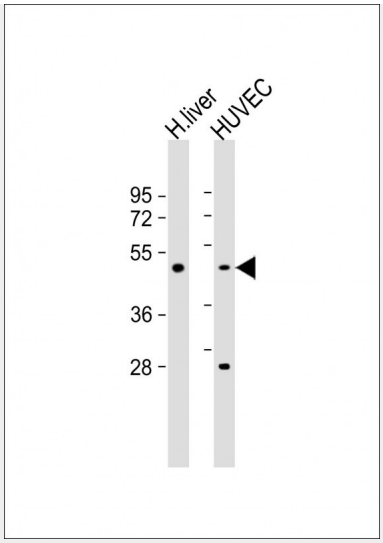


Western blot analysis of lysates from 293, HepG2, HUVEC, Raji, rat C6, mouse C2C12 cell line (from left to right), using SPHK1 Antibody (R301)(Cat. #AP7237c). AP7237c was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysates at 35ug per lane.

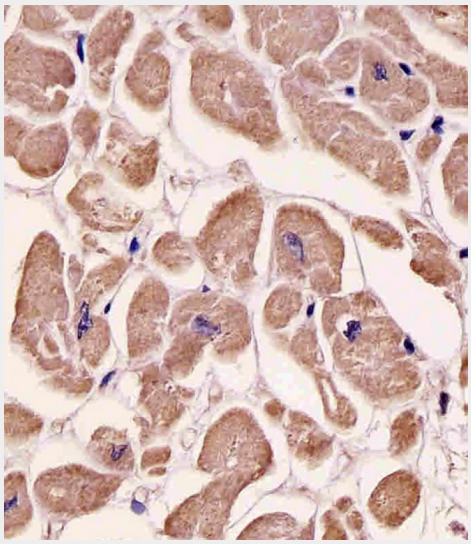
to form sphingosine 1-phosphate (SPP), a lipid mediator with both intra- and extracellular functions. Also acts on D-erythro-sphingosine and to a lesser extent sphinganine, but not other lipids, such as D,L-threo-dihydrosphingosine, N,N-dimethylsphingosine, diacylglycerol, ceramide, or phosphatidylinositol (PubMed:20577214, PubMed:23602659, PubMed:29662056, PubMed:24929359, PubMed:11923095). In contrast to proapoptotic SPHK2, has a negative effect on intracellular ceramide levels, enhances cell growth and inhibits apoptosis (PubMed:16118219). Involved in the regulation of inflammatory response and neuroinflammation. Via the product sphingosine 1-phosphate, stimulates TRAF2 E3 ubiquitin ligase activity, and promotes activation of NF- kappa-B in response to TNF signaling leading to IL17 secretion (PubMed:20577214). In response to TNF and in parallel to NF-kappa-B activation, negatively regulates RANTES induction through p38 MAPK signaling pathway (PubMed:23935096). Involved in endocytic membrane trafficking induced by sphingosine, recruited to dilate endosomes, also plays a role on later stages of endosomal maturation and membrane fusion independently of its kinase activity (PubMed:28049734, PubMed:24929359). In Purkinje cells, seems to be also involved in the regulation of autophagosome-lysosome fusion upon VEGFA (PubMed:25417698).

Cellular Location

Cytoplasm. Nucleus. Cell membrane. Endosome membrane; Peripheral membrane protein. Membrane, clathrin-coated pit. Cell junction, synapse {ECO:0000250|UniProtKB:Q8CI15}. Note=Translocated from the cytoplasm to the plasma membrane in a CIB1-dependent manner (PubMed:19854831). Binds to membranes containing negatively charged lipids but not neutral lipids (PubMed:24929359). Recruited to endocytic membranes by sphingosine where promotes membrane fusion (By similarity)



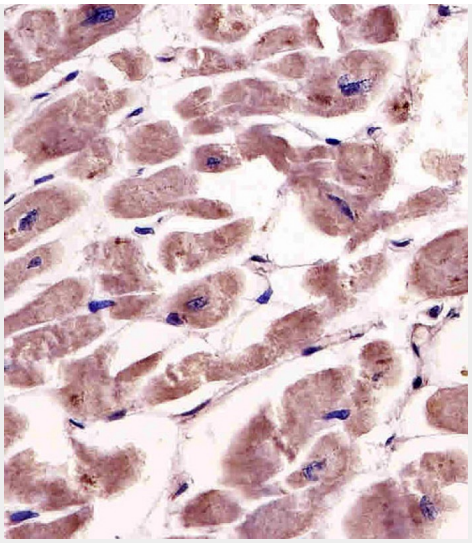
All lanes : Anti-SPHK1 Antibody (Center) at 1:2000 dilution Lane 1: human liver lysate Lane 2: HUVEC whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 43 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



AP7237c staining SPHK1 in human heart tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.

{ECO:0000250|UniProtKB:Q8CI15, ECO:0000269|PubMed:19854831, ECO:0000269|PubMed:24929359}

Tissue Location
Widely expressed with highest levels in adult liver, kidney, heart and skeletal muscle. Expressed in brain cortex (at protein level) (PubMed:29662056). EMBL; AF266756; AAF73470.1; -; mRNA EMBL; AF238083; AAF73423.1; -; mRNA EMBL; AF200328; AAG01980.1; -; mRNA EMBL; AK023393; BAB14558.1; -; mRNA EMBL; AK292294; BAF84983.1; -; mRNA EMBL; AK022402; BAB14028.1; -; mRNA EMBL; AJ245504; CAB92131.1; -; mRNA EMBL; AC090699; -; NOT_ANNOTATED_CDS; Genomic_DNA EMBL; CH471099; EAW89392.1; -; Genomic_DNA EMBL; CH471099; EAW89393.1; -; Genomic_DNA EMBL; BC009419; AAH09419.1; -; mRNA EMBL; BC014439; AAH14439.1; -; mRNA EMBL; BC030553; AAH30553.1; -; mRNA CCDS; CCDS11744.1; -. [Q9NYA1-2] CCDS; CCDS45785.1; -. [Q9NYA1-1] CCDS; CCDS59297.1; -. [Q9NYA1-3] RefSeq; NP_001136073.1; NM_001142601.1. [Q9NYA1-1] RefSeq; NP_001136074.1; NM_001142602.1. [Q9NYA1-1] RefSeq; NP_068807.2; NM_021972.3. [Q9NYA1-3] RefSeq; NP_892010.2; NM_182965.2. [Q9NYA1-2] RefSeq; XP_005257823.1; XM_005257766.2 PDB; 3VZB; X-ray; 2.00 A; A/B/C=9-364 PDB; 3VZC; X-ray; 2.30 A; A/B/C/D/E/F=9-364 PDB; 3VZD; X-ray; 2.30 A; A/B/C/D/E/F=9-364 PDB; 4L02; X-ray; 2.75 A; A/B/C=9-364 PDB; 4V24; X-ray; 1.80 A; A/B=1-363 PDBsum; 3VZB; - PDBsum; 3VZC; - PDBsum; 3VZD; - PDBsum; 4L02; - PDBsum; 4V24; - SMR; Q9NYA1; - BioGRID; 114396; 18 IntAct; Q9NYA1; 58 MINT; Q9NYA1; - STRING; 9606.ENSP00000313681; - BindingDB; Q9NYA1; - ChEMBL; CHEMBL4394; - DrugBank; DB08868; Fingolimod GuidetoPHARMACOLOGY; 2204; - SwissLipids; SLP:000000111; - iPTMnet; Q9NYA1; - PhosphoSitePlus; Q9NYA1; - BioMuta; SPHK1; - DMDM; 17369329; - jPOST; Q9NYA1; - MassIVE; Q9NYA1; - MaxQB; Q9NYA1; - PaxDb; Q9NYA1; - PeptideAtlas; Q9NYA1; - PRIDE; Q9NYA1; - ProteomicsDB; 83202; -. [Q9NYA1-1] ProteomicsDB; 83203; -. [Q9NYA1-2] Antibodypedia; 19687; 706 antibodies DNASU; 8877; - Ensembl; ENST00000323374; ENSP00000313681; ENSG00000176170. [Q9NYA1-2] Ensembl; ENST00000392496; ENSP00000376285; ENSG00000176170. [Q9NYA1-1] Ensembl; ENST00000545180; ENSP00000440970; ENSG00000176170. [Q9NYA1-1] Ensembl; ENST00000590959; ENSP00000468547; ENSG00000176170. [Q9NYA1-3] Ensembl; ENST00000592299; ENSP00000465726; ENSG00000176170. [Q9NYA1-1] GeneID; 8877; - KEGG; hsa:8877; - UCSC; uc002jrf.1; human. [Q9NYA1-1] CTD; 8877; - DisGeNET; 8877; - EuPathDB; HostDB:ENSG00000176170.13; - GeneCards; SPHK1; - HGNC; HGNC:11240; SPHK1 HPA; ENSG00000176170; Low tissue specificity MIM; 603730; gene neXtProt; NX_Q9NYA1; -



AP7237c staining SPHK1 in human heart tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.

SPHK1 Antibody (Center) - Background

Sphingosine Kinase (SphK) catalyzes the phosphorylation of the lipid sphingosine, creating the bioactive lipid sphingosine-1-phosphate (S1P). S1P subsequently signals through cell surface G protein-coupled receptors, as well as intracellularly, to modulate cell proliferation, survival, motility and differentiation. SphK is an important signaling enzyme which is activated by diverse agents, including growth factors that signal through receptor tyrosine kinases, agents activating G protein-coupled receptors, and immunoglobulin receptors. Two SphK isotypes, SphK-1 and SphK-2, have been cloned, and both isotypes are ubiquitously expressed. SphK-1 has been shown to mediate cell growth, prevention of apoptosis, and cellular transformation, and is upregulated in a variety of human tumors. In contrast, SphK-2 increases apoptosis, and may be responsible for phosphorylating and activating the immunosuppressive drug FTY720.

SPHK1 Antibody (Center) - References

Ota, T., et al., Nat. Genet. 36(1):40-45 (2004).
Nava, V.E., et al., FEBS Lett. 473(1):81-84 (2000).
Melendez, A.J., et al., Gene 251(1):19-26 (2000).
Pitson, S.M., et al., Biochem. J. 350 Pt 2, 429-441 (2000).

OpenTargets; ENSG00000176170; - PharmGKB; PA36070; - eggNOG; KOG1116; Eukaryota eggNOG; COG1597; LUCA GeneTree; ENSGT00940000157864; - HOGENOM; CLU_013399_1_0_1; - InParanoid; Q9NYA1; - KO; K04718; - OMA; MEREDWQ; - OrthoDB; 681139at2759; - PhylomeDB; Q9NYA1; - TreeFam; TF354296; - BRENDA; 2.7.1.91; 2681 Reactome; R-HSA-1660661; Sphingolipid de novo biosynthesis Reactome; R-HSA-390471; Association of TriC/CCT with target proteins during biosynthesis Reactome; R-HSA-5218921; VEGFR2 mediated cell proliferation Reactome; R-HSA-9009391; Extra-nuclear estrogen signaling SABIO-RK; Q9NYA1; - SignaLink; Q9NYA1; - SIGNOR; Q9NYA1; - BioGRID-ORCS; 8877; 2 hits in 791 CRISPR screens ChiTaRS; SPHK1; human GeneWiki; Sphingosine_kinase_1; - GenomeRNAi; 8877; - Pharos; Q9NYA1; Tchem PRO; PR:Q9NYA1; - Proteomes; UP000005640; Chromosome 17 RNAct; Q9NYA1; protein Bgee; ENSG00000176170; Expressed in tibial nerve and 152 other tissues ExpressionAtlas; Q9NYA1; baseline and differential Genevisible; Q9NYA1; HS GO; GO:0005905; C:clathrin-coated pit; IDA:UniProtKB GO; GO:0005737; C:cytoplasm; IDA:UniProtKB GO; GO:0005829; C:cytosol; IDA:HPA GO; GO:0031901; C:early endosome membrane; IDA:UniProtKB GO; GO:0030139; C:endocytic vesicle; ISS:UniProtKB GO; GO:0005634; C:nucleus; ISS:UniProtKB GO; GO:0005886; C:plasma membrane; IDA:UniProtKB GO; GO:0098793; C:presynapse; ISS:UniProtKB GO; GO:0016407; F:acetyltransferase activity; ISS:UniProtKB GO; GO:0005524; F:ATP binding; IDA:UniProtKB GO; GO:0005516; F:calmodulin binding; IDA:UniProtKB GO; GO:0017050; F:D-erythro-sphingosine kinase activity; IDA:UniProtKB GO; GO:0003677; F:DNA binding; IDA:MGI GO; GO:0008289; F:lipid binding; IDA:UniProtKB GO; GO:0000287; F:magnesium ion binding; IDA:UniProtKB GO; GO:0003951; F:NAD+ kinase activity; IEA:InterPro GO; GO:0051721; F:protein phosphatase 2A binding; IPI:BHF-UCL GO; GO:0008481; F:sphinganine kinase activity; IDA:UniProtKB GO; GO:0038036; F:sphingosine-1-phosphate receptor activity; IMP:UniProtKB GO; GO:0001568; P:blood vessel development; IEA:Ensembl GO; GO:0007420; P:brain development; IEA:Ensembl GO; GO:0019722; P:calcium-mediated signaling; IDA:UniProtKB GO; GO:0070301; P:cellular response to hydrogen peroxide; IEA:Ensembl GO; GO:0035924; P:cellular response to vascular endothelial growth factor stimulus; IDA:UniProtKB GO; GO:0071897; P:DNA biosynthetic process; IEA:Ensembl GO; GO:0006954; P:inflammatory response; IEA:Ensembl GO; GO:0035556; P:intracellular signal transduction; TAS:UniProtKB GO; GO:0043066; P:negative regulation of apoptotic process; IDA:MGI GO; GO:1900060; P:negative regulation of ceramide biosynthetic process; IDA:UniProtKB GO; GO:0045766; P:positive regulation of angiogenesis; IDA:UniProtKB GO;

GO:0030307; P:positive regulation of cell growth; IDA:UniProtKB GO; GO:0030335; P:positive regulation of cell migration; IDA:UniProtKB GO; GO:0048146; P:positive regulation of fibroblast proliferation; IDA:MGI GO; GO:0032740; P:positive regulation of interleukin-17 production; ISS:UniProtKB GO; GO:0045931; P:positive regulation of mitotic cell cycle; IDA:UniProtKB GO; GO:0045840; P:positive regulation of mitotic nuclear division; IEA:Ensembl GO; GO:0051092; P:positive regulation of NF-kappaB transcription factor activity; IMP:UniProtKB GO; GO:1901224; P:positive regulation of NIK/NF-kappaB signaling; IMP:UniProtKB GO; GO:1900745; P:positive regulation of p38MAPK cascade; IDA:UniProtKB GO; GO:0010800; P:positive regulation of peptidyl-threonine phosphorylation; IMP:UniProtKB GO; GO:0031398; P:positive regulation of protein ubiquitination; IDA:UniProtKB GO; GO:0045987; P:positive regulation of smooth muscle contraction; IDA:UniProtKB GO; GO:0006473; P:protein acetylation; ISS:UniProtKB GO; GO:0006457; P:protein folding; TAS:Reactome GO; GO:0030100; P:regulation of endocytosis; IDA:UniProtKB GO; GO:1905364; P:regulation of endosomal vesicle fusion; ISS:UniProtKB GO; GO:0032651; P:regulation of interleukin-1 beta production; IEA:Ensembl GO; GO:1903978; P:regulation of microglial cell activation; ISS:UniProtKB GO; GO:0150077; P:regulation of neuroinflammatory response; ISS:UniProtKB GO; GO:0050764; P:regulation of phagocytosis; ISS:UniProtKB GO; GO:0010803; P:regulation of tumor necrosis factor-mediated signaling pathway; IDA:UniProtKB GO; GO:0034612; P:response to tumor necrosis factor; IDA:UniProtKB GO; GO:0046521; P:sphingoid catabolic process; NAS:UniProtKB GO; GO:0030148; P:sphingolipid biosynthetic process; TAS:Reactome GO; GO:0046512; P:sphingosine biosynthetic process; IMP:UniProtKB GO; GO:0006670; P:sphingosine metabolic process; IDA:UniProtKB Gene3D; 3.40.50.10330; -; 1 InterPro; IPR017438; ATP-NAD_kinase_N InterPro; IPR001206; Diacylglycerol_kinase_cat_dom InterPro; IPR016064; NAD/diacylglycerol_kinase_sf Pfam; PF00781; DAGK_cat; 1 SMART; SM00046; DAGKc; 1 SUPFAM; SSF111331; SSF111331; 1 PROSITE; PS50146; DAGK; 1 1: Evidence at protein level; 3D-structure; Alternative splicing; ATP-binding; Calmodulin-binding; Cell junction; Cell membrane; Coated pit; Cytoplasm; Endosome; Kinase; Membrane; Nucleotide-binding; Nucleus; Phosphoprotein; Polymorphism; Reference proteome; Synapse; Transferase CHAIN 1..384 /note="Sphingosine kinase 1" /id="PRO_0000181357" DOMAIN 12..159 /note="DAGKc" /evidence="ECO:0000255|PROSITE-ProRule:PRU00783" NP_BIND 22..24 /note="ATP" NP_BIND 54..58 /note="ATP" NP_BIND 111..113 /note="ATP" NP_BIND 341..343 /note="ATP" REGION 79..82 /note="Substrate binding"

/evidence="ECO:0000269|PubMed:23602659
" MOTIF 147..155 /note="Nuclear export
signal 1" MOTIF 161..169 /note="Nuclear
export signal 2" ACT_SITE 81 /note="Proton
donor/acceptor"
/evidence="ECO:0000269|PubMed:23602659
" BINDING 86 /note="ATP" BINDING 178
/note="Substrate" BINDING 185 /note="ATP"
BINDING 191 /note="ATP" MOD_RES 193
/note="Phosphothreonine"
/evidence="ECO:0000244|PubMed:18669648
" MOD_RES 225 /note="Phosphoserine"
/evidence="ECO:0000269|PubMed:20577214
" VAR_SEQ 1 /note="M -> MSAQVLGFLRSWTP
LPLAAPRGPAAAGNDAGAPAATAPGGEGEPHSR
PCDARLGSTDKELKAGAAATGSAPTAPGTPWQRE
PRVEVM (in isoform 2)"
/evidence="ECO:0000303|PubMed:14702039,
ECO:0000303|PubMed:15489334"
/id="VSP_035453" VAR_SEQ 3 /note="P ->
PVVGCGRGLFGFVFS (in isoform 3)"
/evidence="ECO:0000303|PubMed:15489334
" /id="VSP_047078" MUTAGEN 81
/note="D->A: Loss of enzyme activity."
/evidence="ECO:0000269|PubMed:23602659
" MUTAGEN 81 /note="D->N: Strongly
reduced enzyme activity."
/evidence="ECO:0000269|PubMed:23602659
" MUTAGEN 82 /note="G->D: Loss of enzyme
activity."
/evidence="ECO:0000269|PubMed:20577214
" MUTAGEN 194 /note="L->Q: Loss of binding
to negatively charged membranes, diffuse
cytosolic distribution."
/evidence="ECO:0000269|PubMed:24929359
" MUTAGEN 197..198 /note="FL->AQ: Loss of
binding to negatively charged membranes,
diffuse cytosolic distribution."
/evidence="ECO:0000269|PubMed:24929359
" MUTAGEN 197 /note="F->A: Abolishes
interaction with CIB1; when associated with
A-198." MUTAGEN 198 /note="L->A:
Abolishes interaction with CIB1; when
associated with A-197." CONFLICT 6
/note="Missing (in Ref. 4; CAB92131)"
/evidence="ECO:0000305" CONFLICT 11..15
/note="LPRPC -> ARL (in Ref. 4; CAB92131)"
/evidence="ECO:0000305" CONFLICT
114..115 /note="NA -> KP (in Ref. 4;
CAB92131)" /evidence="ECO:0000305"
CONFLICT 251 /note="V -> M (in Ref. 2;
AAF73423)" /evidence="ECO:0000305"
CONFLICT 260 /note="V -> I (in Ref. 2;
AAF73423)" /evidence="ECO:0000305"
CONFLICT 302 /note="L -> F (in Ref. 2;
AAF73423)" /evidence="ECO:0000305"
CONFLICT 325 /note="V -> G (in Ref. 4;
CAB92131)" /evidence="ECO:0000305"
CONFLICT 337 /note="V -> M (in Ref. 3;
AAG01980)" /evidence="ECO:0000305"
STRAND 13..21
/evidence="ECO:0000244|PDB:4V24" TURN
26..29 /evidence="ECO:0000244|PDB:4V24"
HELIX 30..37
/evidence="ECO:0000244|PDB:4V24" HELIX
39..44 /evidence="ECO:0000244|PDB:4V24"
STRAND 47..53
/evidence="ECO:0000244|PDB:4V24" HELIX
59..66 /evidence="ECO:0000244|PDB:4V24"
HELIX 69..71
/evidence="ECO:0000244|PDB:3VZB"

STRAND 73..80
/evidence="ECO:0000244|PDB:4V24" HELIX
81..92 /evidence="ECO:0000244|PDB:4V24"
HELIX 97..100
/evidence="ECO:0000244|PDB:4V24"
STRAND 105..109
/evidence="ECO:0000244|PDB:4V24" HELIX
115..123
/evidence="ECO:0000244|PDB:4V24" HELIX
131..144
/evidence="ECO:0000244|PDB:4V24"
STRAND 146..157
/evidence="ECO:0000244|PDB:4V24"
STRAND 162..172
/evidence="ECO:0000244|PDB:4V24" HELIX
173..181
/evidence="ECO:0000244|PDB:4V24" HELIX
182..190
/evidence="ECO:0000244|PDB:4V24" HELIX
191..201
/evidence="ECO:0000244|PDB:4V24"
STRAND 206..214
/evidence="ECO:0000244|PDB:4V24" HELIX
215..218
/evidence="ECO:0000244|PDB:4V24"
STRAND 230..232
/evidence="ECO:0000244|PDB:3VZB"
STRAND 249..251
/evidence="ECO:0000244|PDB:4V24"
STRAND 255..266
/evidence="ECO:0000244|PDB:4V24"
STRAND 285..291
/evidence="ECO:0000244|PDB:4V24" HELIX
296..305
/evidence="ECO:0000244|PDB:4V24" HELIX
306..308
/evidence="ECO:0000244|PDB:4V24" HELIX
311..314
/evidence="ECO:0000244|PDB:4V24"
STRAND 319..331
/evidence="ECO:0000244|PDB:4V24"
STRAND 333..335
/evidence="ECO:0000244|PDB:4V24"
STRAND 337..340
/evidence="ECO:0000244|PDB:4V24"
STRAND 343..346
/evidence="ECO:0000244|PDB:4V24"
STRAND 350..362
/evidence="ECO:0000244|PDB:4V24"
VARIANT Q9NYA1-2:34 /note="A -> T (in
dbSNP:rs346803)" /evidence="ECO:0000305"
/id="VAR_082919" SEQUENCE 384 AA; 42518
MW; EB04A7F2034C2DB0 CRC64;
MDPAGGPRGV LPRPCRVLVL LNPRGGKGKA
LQLFRSHVQP LLAEAEISFT LMLTERRNHA
RELVRSEELG RWDALVVMSG DGLMHEVVNG
LMERPDWETA IQKPLCSLPA GSGNALAASL
NHYAGYEQVT NEDLLTNCTL LLCRRLLSPM
NLLSLHTASG LRLFSVLSLA WGFIADVDLE
SEKYRRLGEM RFTLGTFLRL AALRTYRGRL
AYLPVGRVGS KTPASPVVVQ QGPVDAHLVP
LEEPVPSHWT VVPDEDFVLV LALLHSHLGS
EMFAAPMGRC AAGVMHLFYV RAGVSRAMLL
RLFLAMEKGR HMEYECPYLV YVPVVAFRLE
PKDGKGVFAV DGELMVSEAV QGQVHPNYFW
MVSGCVEPPP SWKPQQMPPP EEPL

SPHK1 Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

SPHK1 Antibody (Center) - Citations

- Increased Sphingosine Kinase 1 Expression Predicts Distant Metastasis and Poor Outcome in Patients With Colorectal Cancer.
- Neuronal SphK1 acetylates COX2 and contributes to pathogenesis in a model of Alzheimer's Disease.
- Predictive and prognostic value of sphingosine kinase 1 expression in patients with invasive ductal carcinoma of the breast.
- Insulin-like growth factor receptor and sphingosine kinase are prognostic and therapeutic targets in breast cancer.
- Predictive Value of Sphingosine Kinase 1 Expression in Papillary Thyroid Carcinoma.
- Inhibition of basal-like breast cancer growth by FTY720 in combination with epidermal growth factor receptor kinase blockade.
- Sphingosine kinase 2 activates autophagy and protects neurons against ischemic injury through interaction with Bcl-2 via its putative BH3 domain.
- Overexpression of sphingosine kinase 1 is predictive of poor prognosis in human breast cancer.
- Sphingosine kinase 1 expression enhances colon tumor growth.
- Sphingosine-1-phosphate is involved in the occlusive arteriopathy of pulmonary arterial hypertension.
- Regulation of cellular sphingosine-1-phosphate by sphingosine kinase 1 and sphingosine-1-phopshate lyase determines chemotherapy resistance in gastroesophageal cancer.
- Sphingosine kinase 1 mediates neuroinflammation following cerebral ischemia.
- The apoptotic mechanism of action of the sphingosine kinase 1 selective inhibitor SKI-178 in human acute myeloid leukemia cell lines.
- SphK1 confers resistance to apoptosis in gastric cancer cells by downregulating Bim via stimulating Akt/FoxO3a signaling.
- Isoflurane attenuates blood-brain barrier disruption in ipsilateral hemisphere after subarachnoid hemorrhage in mice.
- Sphingosine kinase-1 enhances resistance to apoptosis through activation of PI3K/Akt/NF-ÎºB pathway in human non-small cell lung cancer.
- Isoflurane activates intestinal sphingosine kinase to protect against renal ischemia-reperfusion-induced liver and intestine injury.
- Sphingosine kinase 1 and sphingosine 1-phosphate receptor 3 are functionally upregulated on astrocytes under pro-inflammatory conditions.
- Isoflurane activates intestinal sphingosine kinase to protect against bilateral nephrectomy-induced liver and intestine dysfunction.
- Overexpression of sphingosine kinase 1 is associated with salivary gland carcinoma progression and might be a novel predictive marker for adjuvant therapy.
- Sphingosine kinase 1 regulates the expression of proinflammatory cytokines and nitric oxide in activated microglia.
- Sphingosine-1-phosphate elicits receptor-dependent calcium signaling in retinal amacrine cells.
- Differential regulation of sphingosine kinases 1 and 2 in lung injury.
- Sphingosine kinase 1 is associated with gastric cancer progression and poor survival of patients.
- Clinical significance of sphingosine kinase-1 expression in human astrocytomas progression and overall patient survival.
- Activation of sphingosine kinase-1 mediates inhibition of vascular smooth muscle cell apoptosis by hyperglycemia.
- FHL2/SLIM3 decreases cardiomyocyte survival by inhibitory interaction with sphingosine kinase-1.