

**SphK2 (phospho Thr614) Polyclonal Antibody**

<b>Catalog No :</b>	YP1108
<b>Reactivity :</b>	Human;Mouse;Rat
<b>Applications :</b>	IHC;IF;WB;ELISA
<b>Target :</b>	SphK2
<b>Fields :</b>	>>Sphingolipid metabolism;>>Metabolic pathways;>>Calcium signaling pathway;>>Sphingolipid signaling pathway;>>Phospholipase D signaling pathway;>>VEGF signaling pathway;>>Apelin signaling pathway;>>Fc gamma R-mediated phagocytosis;>>Tuberculosis
<b>Gene Name :</b>	SPHK2
<b>Protein Name :</b>	Sphingosine kinase 2
<b>Human Gene Id :</b>	56848
<b>Human Swiss Prot No :</b>	Q9NRA0
<b>Mouse Gene Id :</b>	56632
<b>Mouse Swiss Prot No :</b>	Q9JIA7
<b>Immunogen :</b>	The antiserum was produced against synthesized peptide derived from human SPHK2 around the phosphorylation site of Thr614. AA range:580-629
<b>Specificity :</b>	Phospho-SphK2 (T614) Polyclonal Antibody detects endogenous levels of SphK2 protein only when phosphorylated at T614.
<b>Formulation :</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source :</b>	Polyclonal, Rabbit,IgG
<b>Dilution :</b>	WB 1:500-2000 IHC 1:100 - 1:300. ELISA: 1:5000.. IF 1:50-200
<b>Purification :</b>	The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

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**Concentration :** 1 mg/ml

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**Storage Stability :** -15°C to -25°C/1 year(Do not lower than -25°C)

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**Molecularweight :** 69kD

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**Cell Pathway :** Sphingolipid metabolism;Calcium;VEGF;Fc gamma R-mediated phagocytosis;

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**Background :** This gene encodes one of two sphingosine kinase isozymes that catalyze the phosphorylation of sphingosine into sphingosine 1-phosphate. Sphingosine 1-phosphate mediates many cellular processes including migration, proliferation and apoptosis, and also plays a role in several types of cancer by promoting angiogenesis and tumorigenesis. The encoded protein may play a role in breast cancer proliferation and chemoresistance. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, Aug 2011],

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**Function :** alternative products:Experimental confirmation may be lacking for some isoforms,catalytic activity:ATP + sphinganine = ADP + sphinganine 1-phosphate.,catalytic activity:ATP + sphingosine = ADP + sphingosine 1-phosphate.,cofactor:Magnesium.,function:Catalyzes the phosphorylation of sphingosine to form sphingosine 1-phosphate (SPP), a lipid mediator with both intra-and extracellular functions. Also acts on D-erythro-dihydrosphingosine, D-erythro-sphingosine and L-threo-dihydrosphingosine.,similarity:Contains 1 DAGKc domain.,

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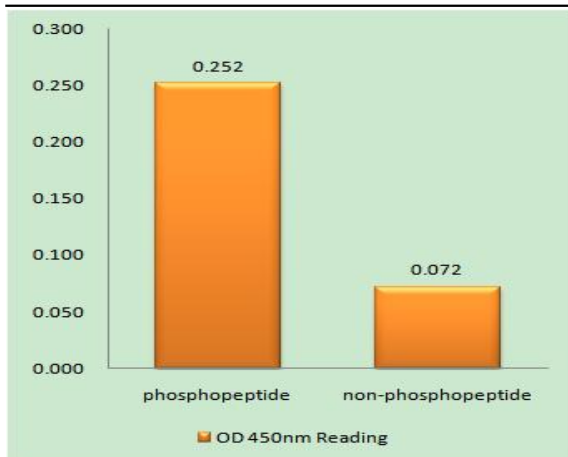
**Subcellular Location :** Cytoplasm . Nucleus . Endoplasmic reticulum . Mitochondrion inner membrane . In nucleus, located in nucleosomes where it associates with core histone proteins such as histone 3 (PubMed:19729656). In brains of patients with Alzheimer's disease, may be preferentially localized in the nucleus. Cytosolic expression decrease correlates with the density of amyloid deposits (PubMed:29615132). In apoptotic cells, colocalizes with CASP1 in cell membrane where is cleaved and released from cells in an active form (PubMed:20197547). .; [Isoform 2]: Lysosome membrane .

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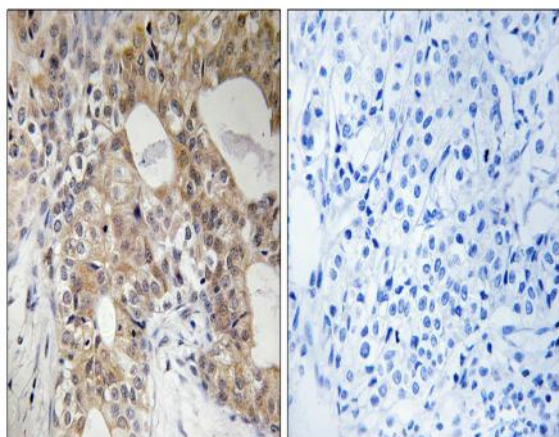
**Expression :** Mainly expressed in adult kidney, liver, and brain (PubMed:10751414). Expressed in cerebral cortex and hippocampus (at protein level) (PubMed:29615132). Isoform 1 is the predominant form expressed in most tissues (PubMed:16103110).

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## Products Images



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using SPHK2 (Phospho-Thr614) Antibody



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using SPHK2 (Phospho-Thr614) Antibody. The picture on the right is blocked with the phospho peptide.