10320 Camino Santa Fe, Suite G
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# SGPP1 Antibody (N-term)
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**
**Catalog # AP13228a**

## Specification

### SGPP1 Antibody (N-term) - Product Information

| | |
|---|---|
| Application | **WB, IHC-P-Leica, IHC-P,E** |
| Primary Accession | Q9BX95 |
| Other Accession | NP_110418.1 |
| Reactivity | **Human** |
| Host | **Rabbit** |
| Clonality | **Polyclonal** |
| Isotype | **Rabbit IgG** |
| Calculated MW | **49108** |
| Antigen Region | **13-42** |

### SGPP1 Antibody (N-term) - Additional Information

**Gene ID** 81537

**Other Names**
Sphingosine-1-phosphate phosphatase 1, SPPase1, Spp1, hSPP1, hSPPase1, 313-, Sphingosine-1-phosphatase 1, SGPP1

**Target/Specificity**
This SGPP1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 13-42 amino acids from the N-terminal region of human SGPP1.

**Dilution**
WB~~1:1000
IHC-P-Leica~~1:500
IHC-P~~1:10~50

**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**
SGPP1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

### SGPP1 Antibody (N-term) - Protein Information

**Name** SGPP1 (HGNC:17720)

**Function** Specifically dephosphorylates sphingosine 1-phosphate (S1P), dihydro-S1P, and phyto-S1P. Does not act on ceramide 1-phosphate, lysophosphatidic acid or phosphatidic acid (PubMed:16782891). Sphingosine-1-phosphate phosphatase activity is needed for efficient recycling of sphingosine into the sphingolipid synthesis pathway (PubMed:12815058, PubMed:11756451, PubMed:16782891). Regulates the intracellular levels of the bioactive sphingolipid metabolite S1P that regulates diverse biological processes acting both as an extracellular receptor ligand or as an intracellular second messenger (PubMed:11756451, PubMed:12815058, PubMed:16782891). Involved in efficient ceramide synthesis from exogenous sphingoid bases. Converts S1P to sphingosine, which is readily metabolized to ceramide via ceramide synthase. In concert with sphingosine kinase 2 (SphK2), recycles sphingosine into ceramide through a phosphorylation/dephosphorylation cycle (By similarity). Regulates endoplasmic-to-Golgi trafficking of ceramides, resulting in the regulation of ceramide levels in the endoplasmic reticulum, preferentially long-chain ceramide species, and influences the anterograde membrane transport of both ceramide and proteins from the endoplasmic reticulum to the Golgi apparatus (PubMed:16782891). The modulation of intracellular ceramide levels in turn regulates apoptosis (By similarity). Via S1P levels, modulates resting tone, intracellular Ca(2+) and myogenic vasoconstriction in resistance arteries (PubMed:18583713). Also involved in unfolded protein response (UPR) and ER stress-induced autophagy via regulation of intracellular S1P levels (PubMed:20798685, PubMed:18583713). Involved in the regulation of epidermal homeostasis and keratinocyte differentiation (By similarity).

**Cellular Location**
Endoplasmic reticulum membrane; Multi-pass membrane protein. Cell membrane {ECO:0000250|UniProtKB:Q9JI99}; Multi-pass membrane protein

**Tissue Location**
Ubiquitous, with the strongest level in placenta and kidney.

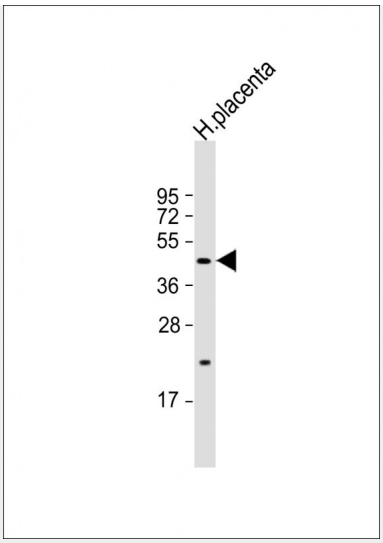
## SGPP1 Antibody (N-term) - Protocols

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

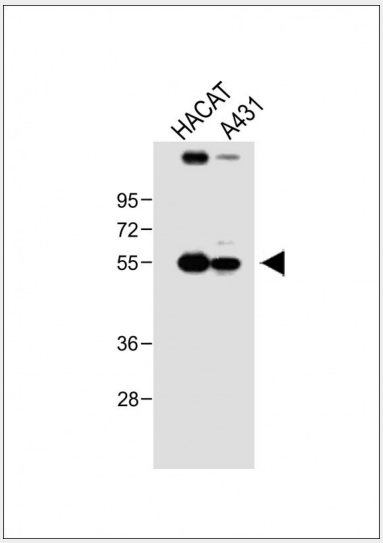
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

## SGPP1 Antibody (N-term) - Images

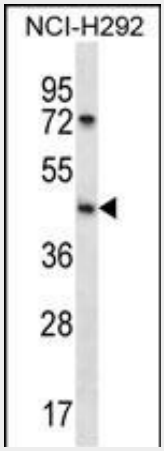
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Anti-SGPP1 Antibody (N-term) at 1:1000 dilution + human placenta lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 49 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

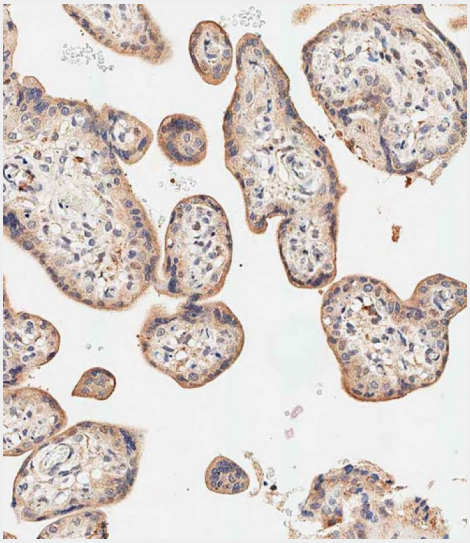



All lanes : Anti-SGPP1 Antibody (N-term) at 1:1000 dilution Lane 1: HACAT whole cell lysate Lane 2: A431 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 49 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

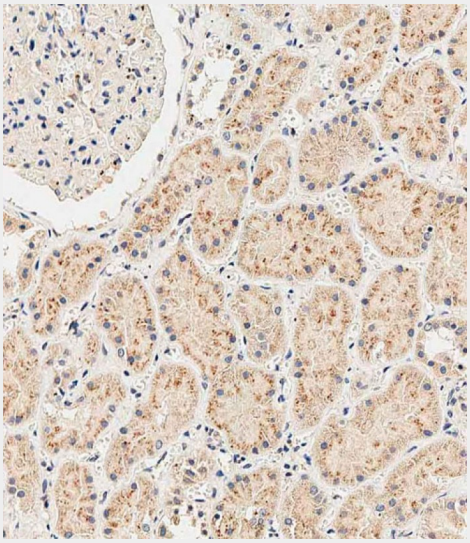


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SGPP1 Antibody (N-term) (Cat. #AP13228a) western blot analysis in NCI-H292 cell line lysates (35ug/lane).This demonstrates the SGPP1 antibody detected the SGPP1 protein (arrow).



Immunohistochemical analysis of paraffin-embedded human placenta tissue using AP13228A performed on the Leica® BOND RXm. Tissue was fixed with formaldehyde at room temperature, antigen retrieval was by heat mediation with a EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:500) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.



Immunohistochemical analysis of paraffin-embedded human kidney tissue using AP13228A performed on the Leica® BOND RXm. Tissue was fixed with formaldehyde at room temperature, antigen retrieval was by heat mediation with a EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:500) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.

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SGPP1 Antibody (N-term) (Cat. #AP13228a)immunohistochemistry analysis in formalin fixed and paraffin embedded human placenta tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of SGPP1 Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.

**SGPP1 Antibody (N-term) - Background**

Sphingosine-1-phosphate (S1P) is a bioactive sphingolipid metabolite that regulates diverse biologic processes. SGPP1 catalyzes the degradation of S1P via salvage and recycling of sphingosine into long-chain ceramides (Mandala et al., 2000 [PubMed 10859351]; Le Stunff et al., 2007 [PubMed 17895250]).[supplied by OMIM].

**SGPP1 Antibody (N-term) - References**

Hicks, A.A., et al. PLoS Genet. 5 (10), E1000672 (2009) :
Le Stunff, H., et al. J. Biol. Chem. 282(47):34372-34380(2007)
Sugiyama, N., et al. Mol. Cell Proteomics 6(6):1103-1109(2007)
Olsen, J.V., et al. Cell 127(3):635-648(2006)
Giussani, P., et al. Mol. Cell. Biol. 26(13):5055-5069(2006)