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Anti-Sphingosine-1-phosphate Reference Antibody (sonepcizumab)

Recombinant Antibody
Catalog # APR10344

Specification

Anti-Sphingosine-1-phosphate Reference Antibody (sonepcizumab) - Product Information

Application	**FC, Kinetics, Animal Model**
Primary Accession	Q9BX95
Reactivity	**Human, Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**146.4 KDa**

Anti-Sphingosine-1-phosphate Reference Antibody (sonepcizumab) - Additional Information

Target/Specificity
Sphingosine-1-phosphate

Endotoxin
< 0.001EU/ μg,determined by LAL method.

Conjugation
Unconjugated

Expression system
CHO Cell

Format
Purified monoclonal antibody supplied in PBS, pH6.0, without preservative.This antibody is purified through a protein A column.

Anti-Sphingosine-1-phosphate Reference Antibody (sonepcizumab) - 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:11756451, PubMed:12815058, 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:<a

href="http://www.uniprot.org/citations/12815058" target="_blank">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:18583713, PubMed:20798685). 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.

Anti-Sphingosine-1-phosphate Reference Antibody (sonepcizumab) - 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

Anti-Sphingosine-1-phosphate Reference Antibody (sonepcizumab) - Images

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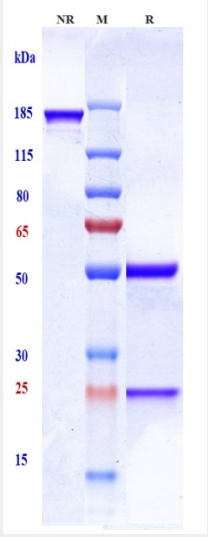
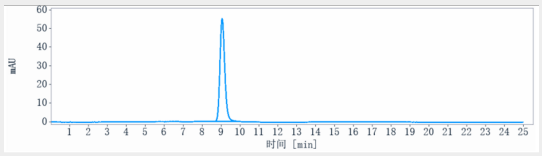


Anti-Sphingosine-1-phosphate Reference Antibody (sonepcizumab) on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%



The purity of Anti-Sphingosine-1-phosphate Reference Antibody (sonepcizumab)is more than 98.9% ,determined by SEC-HPLC.