

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

Recombinant Antibody
Catalog # APR10344

Product Information

Application	FC, Kinetics, Animal Model
Primary Accession	Q9BX95
Reactivity	Human, Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	49108

Additional Information

Target/Specificity	Sphingosine-1-phosphate
Endotoxin 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.

Protein Information

Name	SGPP1 (HGNC:17720)
Function	<p>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: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</p>

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).

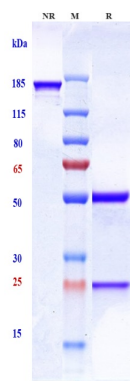
Cellular Location

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

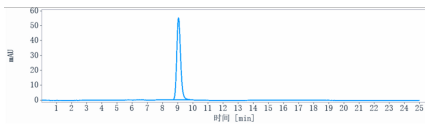
Tissue Location

Ubiquitous, with the strongest level in placenta and kidney.

Images



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.

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