



Rabbit Anti-Sphingomyelin Synthase 2 antibody

SL5694R

Product Name:	Sphingomyelin Synthase 2
Chinese Name:	鞘磷脂合成酶2抗体
Alias:	Phosphatidylcholine:ceramide cholinephosphotransferase 2; SGMS 2; SGMS2; SM synthase; SMS 2; SMS2; SMS2_HUMAN; Sphingomyelin synthase 2.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Cow,Horse,Rabbit,Sheep,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	42kDa
Cellular localization:	The cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Sphingomyelin Synthase 2:281-365/365
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	Preservative: 15mM Sodium Azide, Constituents: 1% BSA, 0.01M PBS, pH 7.4
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	Sphingomyelin, a major component of cell and Golgi membranes, is made by the transfer of phosphocholine from phosphatidylcholine onto ceramide, with diacylglycerol as a side product. The protein encoded by this gene is an enzyme that catalyzes this reaction primarily at the cell membrane. The synthesis is reversible, and this enzyme can catalyze the reaction in either direction. The encoded protein is required for cell growth.

Three transcript variants encoding the same protein have been found for this gene. There is evidence for more variants, but the full-length nature of their transcripts has not been determined.[provided by RefSeq, Oct 2008].

Function:

Sphingomyelin synthases synthesize the sphingolipid, sphingomyelin, through transfer of the phosphatidyl head group, phosphatidylcholine, on to the primary hydroxyl of ceramide. The reaction is bidirectional depending on the respective levels of the sphingolipid and ceramide. Plasma membrane SMS2 can also convert phosphatidylethanolamine (PE) to ceramide phosphatidylethanolamine (CPE). Major form in liver. Required for cell growth in certain cell types. Regulator of cell surface levels of ceramide, an important mediator of signal transduction and apoptosis. Regulation of sphingomyelin (SM) levels at the cell surface affects insulin sensitivity.

Subcellular Location:

Cell membrane; Multi-pass membrane protein. Golgi apparatus membrane; Multi-pass membrane protein. Note=Predominantly plasma membrane, some in Golgi apparatus. Some localization in the perinuclear region where it colocalizes with a sialyltransferase.

Tissue Specificity:

Brain, heart, kidney, liver, muscle and stomach. Also expressed in a number of cell lines such as carcinoma HeLa cells, hepatoma Hep-G2 cells, and colon carcinoma Caco-2 cells.

Post-translational modifications:

Palmitoylated on Cys-331, Cys-332, Cys-343 and Cys-348; which plays an important role in plasma membrane localization.

Similarity:

Belongs to the sphingomyelin synthase family.

SWISS:

Q8NHU3

Gene ID:

166929

Database links:

[Entrez Gene: 166929](#)Human

[Entrez Gene: 74442](#)Mouse

[Entrez Gene: 310849](#)Rat

[Omim: 611574](#)Human

[SwissProt: Q8NHU3](#)Human

[SwissProt: Q9D4B1](#)Mouse

[SwissProt: Q4JM44](#)Rat

[Unigene: 595423](#)Human

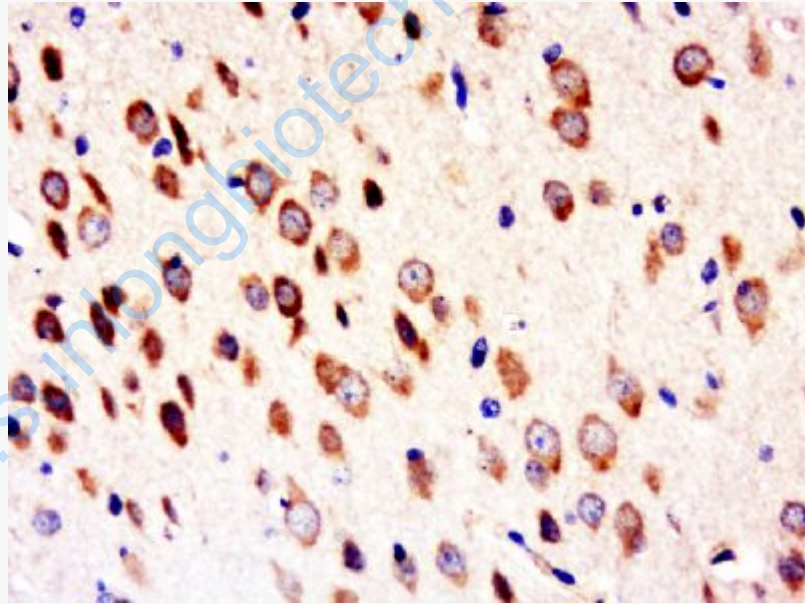
[Unigene: 273360](#)Mouse

[Unigene: 161863](#)Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:



Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Sphingomyelin Synthase 2) Polyclonal Antibody, Unconjugated (SL5694R) at 1:200 overnight at 4°C, followed by a conjugated

	secondary (sp-0023) for 20 minutes and DAB staining.
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