

# Rabbit Anti-Sphingomyelin Synthase 1 antibody

## SL4216R

Product Name:	Sphingomyelin Synthase 1
Chinese Name:	<b>鞘磷脂合成酶1抗体</b>
Alias:	MOB; Phosphatidylcholine:ceramide cholinephosphotransferase 1; Protein Mob; SGMS1; SMS 1; SMS1; TMEM23; Transmembrane protein 23; HSD36; SMS1 HUMAN; MOB.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human, Mouse, Rat, Chicken, Dog, Cow, Horse, Rabbit,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=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:	49kDa
Cellular localization:	cytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	lmg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Sphingomyelin Synthase 1:331-413/419
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
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. Thereaction is bidirectional depending on the respective levels of thesphingolipid and ceramide. Golgi apparatus SMS1 directly and specifically recognizes the choline head group on the substrate,requiring two fatty chains on the choline-P donor molecule in order to be recognized efficiently as a substrate. Major form inmacrophages. Required for cell growth in certain cell types such as HeLa cells. Suppresses BAX-mediated apoptosis and also prevents cell death in response to stimuli such as hydrogen peroxide, osmotic stress, elevated temperature and exogenously supplied sphingolipids. May protect against cell death by reversing the stress-inducible increase in levels of proapoptotic ceramide.

#### **Subcellular Location:**

Golgi apparatus membrane; Multi-passmembrane protein.[ALTERNATIVE PRODUCTS] Event=Alternative splicing; Namedisoforms=2; Name=1; IsoId=Q86VZ5-1; Sequence=Displayed; Name=2;IsoId=Q86VZ5-2; Sequence=VSP 027223, VSP 027224.

#### Tissue Specificity:

Brain, heart, kidney, liver, muscle andstomach.

#### Similarity:

Belongs to the sphingomyelin synthase family. Contains 1 SAM (sterile alpha motif) domain.

#### **SWISS:**

Q86VZ5

#### Gene ID:

259230

#### Database links:

Entrez Gene: 259230 Human

Entrez Gene: 208449Mouse

Entrez Gene: 353229Rat

Omim: 611573Human

SwissProt: Q86VZ5Human

SwissProt: Q8VCQ6Mouse

SwissProt: Q7TSX5Rat

### **Important Note:**

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

