

Rabbit Anti-ASAH2 antibody

SL6021R

Product Name	ASAH2
Chinese Name	酰基鞘氨醇脱酰酶 2 抗体
Alias	Acylsphingosine deacylase 2; ASAH2; ASAH2_HUMAN; BCDase; hCD; HNAC1; LCDase; MGC129777; mitochondrial ceramidase; N acylsphingosine amidohydrolase (non lysosomal ceramidase) 2; N acylsphingosine amidohydrolase 2; N CDase; N-acylsphingosine amidohydrolase 2; N-CDase; NCDase; Neutral ceramidase soluble form; Non lysosomal ceramidase; Non-lysosomal ceramidase.
Research Area	immunology Neurobiology Signal transduction
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	(predicted: Human, Mouse, Rat, Dog, Rabbit,) IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000 (Paraffin sections need antigen repair)
Applications	not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	86kDa
Cellular localization	The cell membrane Secretory protein
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human ASAH2: 701-780/780
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

PubMed

[PubMed](#)

Hydrolyzes the sphingolipid ceramide into sphingosine and free fatty acid at an optimal pH of 6.5-8.5. Acts as a key regulator of sphingolipid signaling metabolites by generating sphingosine at the cell surface. Acts as a repressor of apoptosis both by reducing C16-ceramide, thereby preventing ceramide-induced apoptosis, and generating sphingosine, a precursor of the antiapoptotic factor sphingosine 1-phosphate. Probably involved in the digestion of dietary sphingolipids in intestine by acting as a key enzyme for the catabolism of dietary sphingolipids and regulating the levels of bioactive sphingolipid metabolites in the intestinal tract.

Function:

Hydrolyzes the sphingolipid ceramide into sphingosine and free fatty acid at an optimal pH of 6.5-8.5. Acts as a key regulator of sphingolipid signaling metabolites by generating sphingosine at the cell surface. Acts as a repressor of apoptosis both by reducing C16-ceramide, thereby preventing ceramide-induced apoptosis, and generating sphingosine, a precursor of the antiapoptotic factor sphingosine 1-phosphate. Probably involved in the digestion of dietary sphingolipids in intestine by acting as a key enzyme for the catabolism of dietary sphingolipids and regulating the levels of bioactive sphingolipid metabolites in the intestinal tract.

Product Detail

Subcellular Location:

Cell membrane; Single-pass type II membrane protein. Note=The neutral ceramidase soluble form is a secreted protein. According to PubMed:10781606, it is mitochondrial. However, they used a shorter form in its N-terminus, which may explain this localization which probably does not exist in vivo.

Tissue Specificity:

Primarily expressed in the intestine (PubMed:17334805). Ubiquitously expressed with higher levels in kidney, skeletal muscle and heart (PubMed:10781606). According to PubMed:17334805, ubiquitous expression attributed to ASAH2 may be actually that of the paralog ASAH2B.

Post-translational modifications:

N-glycosylated. Required for enzyme activity (By similarity).

O-glycosylated. Required to retain it as a type II membrane protein at the cell surface.

Phosphorylated. May prevent ubiquitination and subsequent degradation (By similarity).

Ubiquitinated, leading to its degradation by the proteasome. Ubiquitination is triggered by nitric oxid (By similarity).

Similarity:

Belongs to the neutral ceramidase family.

SWISS:

Q9NR71

Gene ID:

56624

Database links:

[Entrez Gene: 56624](#) Human

[Entrez Gene: 653308](#) Human

[Entrez Gene: 54447](#) Mouse

[Entrez Gene: 114104](#) Rat

[Omim: 611202](#) Human

[SwissProt: Q9NR71](#) Human

[SwissProt: Q9JHE3](#) Mouse

[SwissProt: Q91XT9](#) Rat

[Unigene: 512645](#) Human

[Unigene: 710005](#) Human

[Unigene: 104900](#) Mouse

[Unigene: 156958](#) Rat