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Rabbit Anti-NSMase2/FITC Conjugated antibody

SL11193R-FITC

Product Name:	Anti-NSMase2/FITC
Chinese Name:	FITC标记的中性鞘磷脂2抗体
Alias:	N-SMase2; Cca1; neutral sphingomyelinase 2; Confluent 3Y1 cell-associated protein 1; Neutral sphingomyelinase 2; Neutral sphingomyelinase II; NSMA2_HUMAN; nSMase-2; nSMase2; Smpd3; Sphingomyelin phosphodiesterase 3.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,Rabbit,
Applications:	ICC=1:50-200IF=1:50-200 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	71kDa
Cellular localization:	The cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human NSMase2
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.
Product Detail:	**background:** N-SMase2 (neutral sphingomyelinase 2), also known as NSMASE2 or SMPD3 (sphingomyelin phosphodiesterase 3), is a ubiquitously expressed 655 amino acid member of the magnesium-dependent phosphohydrolase protein family. Localized to the membrane of the Golgi apparatus, N-SMase2 functions to catalyze the hydrolysis of sphingomyelin to form ceramide and phosphocholine—two proteins that mediate cell growth arrest and apoptosis. N-SMase2 is enzymatically activated by unsaturated fatty

acids and phosphatidylserine and, through regulation of ceramide synthesis, is involved in growth suppression and postnatal development. Expression of N-SMase2 is upregulated during the G0/G1 phases of the cell cycle and optimal N-SMase2 activity occurs at a slightly basic pH of 7.5. N-SMase2 deficiency is the cause of chondrodysplasia, a genetic disorder characterized by impaired bone growth that leads to short stature, bowlegs and underdeveloped joints.

Function:
Catalyzes the hydrolysis of sphingomyelin to form ceramide and phosphocholine. Ceramide mediates numerous cellular functions, such as apoptosis and growth arrest, and is capable of regulating these 2 cellular events independently. Also hydrolyzes sphingosylphosphocholine. Regulates the cell cycle by acting as a growth suppressor in confluent cells. Probably acts as a regulator of postnatal development and participates in bone and dentin mineralization.

Subunit:
Belongs to the neutral sphingomyelinase family.

Subcellular Location:
Golgi apparatus membrane. Cell membrane. May localize to detergent-resistant subdomains of Golgi membranes of hypothalamic neurosecretory neurons. According to PubMed:15051724, it localizes to plasma membrane in confluent contact-inhibited cells.

Tissue Specificity:
Predominantly expressed in brain.

Similarity:
Belongs to the neutral sphingomyelinase family.

Database links:

Entrez Gene: 55512Human

Omim: 605777Human

SwissProt: Q9NY59Human

Unigene: 368421Human

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