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Ceramide synthase 1 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP58273

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	P27544
Reactivity	Rat, Pig, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	39536
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human LASS1
Epitope Specificity	181-280/350
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Endoplasmic reticulum membrane; Multi-pass membrane protein. Isoform 1: Endoplasmic reticulum membrane; Multi-pass membrane protein. Golgi apparatus membrane; Multi-pass membrane protein. Note=Isoform 1 may recycle from the Golgi to the endoplasmic reticulum.
SIMILARITY	Contains 1 TLC (TRAM/LAG1/CLN8) domain.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	LASS1 may be either a bona fide (dihydro)ceramide synthase or a modulator of its activity. When overexpressed in cells it is involved in the production of sphingolipids containing mainly one fatty acid donnor in a fumonisin B1-independent manner.

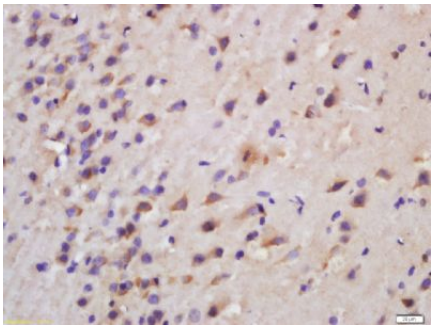
Additional Information

Gene ID	10715
Other Names	Ceramide synthase 1, CerS1, 2.3.1.-, LAG1 longevity assurance homolog 1, Longevity assurance gene 1 protein homolog 1, Protein UOG-1, CERS1 {ECO:0000303|PubMed:17977534, ECO:0000312|HGNC:HGNC:14253}
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. 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.

Protein Information

Name	CERS1 {ECO:0000303|PubMed:17977534, ECO:0000312|HGNC:HGNC:14253}
Function	Ceramide synthase that catalyzes the transfer of the acyl chain from acyl-CoA to a sphingoid base, with high selectivity toward stearoyl-CoA (octadecanoyl-CoA; C18:0-CoA) (PubMed:17977534, PubMed:23530041, PubMed:26887952, PubMed:31916624). N-acylates sphinganine and sphingosine bases to form dihydroceramides and ceramides in de novo synthesis and salvage pathways, respectively (PubMed:17977534, PubMed:23530041, PubMed:24782409, PubMed:26887952, PubMed:31916624). Plays a predominant role in skeletal muscle in regulating C18 ceramide and dihydroceramide levels with an impact on whole-body glucose metabolism and insulin sensitivity. Protects from diet-induced obesity by suppressing the uptake of glucose in multiple organs in a FGF21-dependent way (By similarity). Generates C18 ceramides in the brain, playing a critical role in cerebellar development and Purkinje cell function (By similarity). In response to cellular stress mediates mitophagy, a known defense mechanism against cell transformation and aging. Upon mitochondria fission, generates C18 ceramides that anchor lipidated MAP1LC3B/LC3B-II autophagolysosomes to outer mitochondrial membranes to eliminate damaged mitochondria (PubMed:22922758).
Cellular Location	Endoplasmic reticulum membrane; Multi-pass membrane protein

Images



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;
Incubation: Anti-CERS1 Polyclonal Antibody, Unconjugated(AP58273) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining