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SAMD8 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12035a

Product Information

Application	WB, E
Primary Accession	Q96LT4
Other Accession	Q9DA37, NP_653261.1
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB31781
Calculated MW	48321
Antigen Region	38-67

Additional Information

Gene ID	142891
Other Names	Sphingomyelin synthase-related protein 1, SMSr, 278-, Ceramide phosphoethanolamine synthase, CPE synthase, Sterile alpha motif domain-containing protein 8, SAM domain-containing protein 8, SAMD8
Target/Specificity	This SAMD8 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 38-67 amino acids from the N-terminal region of human SAMD8.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	SAMD8 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SAMD8 (HGNC:26320)
Function	Synthesizes sphingolipids through transfer of a phosphatidyl head group from a glycerophospholipid on to the primary hydroxyl of a ceramide in the

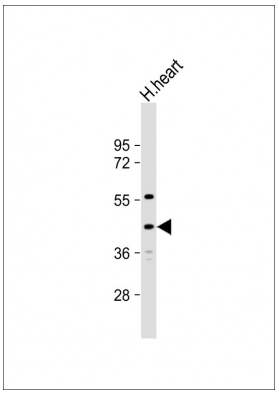
lumen of the endoplasmic reticulum (PubMed:19506037, PubMed:38388831). Catalyzes the synthesis of ceramide phosphoethanolamines (CPEs) (such as N-acylsphing-4-enine 1- phosphoethanolamine) by transferring phosphoethanolamine head group, which is smaller and more hydrophilic than the phosphocholine (PC) headgroup transferred in the canonical sphingomyelin synthesis (SMS) reaction by SMS1 or SMS2, from a phosphatidylethanolamine (1,2-diacyl- sn-glycero-3-phosphoethanolamine, PE) to a ceramide (such as N- acylsphing-4-enine) (PubMed:19506037, PubMed:38388831). The larger PC prevents an efficient fit in the enzyme's catalytic pocket, leading to little or no SMS activity (PubMed:19506037, PubMed:38388831). In vitro, in the absence of ceramide, it has PLC activity with preference for phosphatidylinositol and phosphatidic acid, but also hydrolyzes phosphatidylethanolamine (PubMed:33621517, PubMed:38388831).

Cellular Location Endoplasmic reticulum membrane; Multi-pass membrane protein

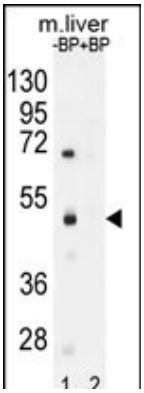
References

Grupe, A., et al. Am. J. Hum. Genet. 78(1):78-88(2006)
Barrios-Rodiles, M., et al. Science 307(5715):1621-1625(2005)
Huitema, K., et al. EMBO J. 23(1):33-44(2004)

Images



Anti-SAMD8 Antibody (N-term) at 1:1000 dilution + human heart lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 48 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Western blot analysis of SAMD8 Antibody (N-term) Pab (Cat. #AP12035a) pre-incubated without(lane 1) and with(lane 2) blocking peptide in mouse liver tissue lysate. SAMD8 Antibody (N-term) (arrow) was detected using the purified Pab.