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ACER3 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8953b

Product Information

Application	WB, FC, E
Primary Accession	Q9NUN7
Other Accession	Q9D099
Reactivity	Human, Mouse
Predicted	Rat, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB22389
Calculated MW	31552
Antigen Region	224-250

Additional Information

Gene ID	55331
Other Names	Alkaline ceramidase 3, AlkCDase 3, Alkaline CDase 3, 351-, Alkaline dihydroceramidase SB89, Alkaline phytoceramidase, aPHC, ACER3, APHC, PHCA
Target/Specificity	This ACER3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 224-250 amino acids from the C-terminal region of human ACER3.
Dilution	WB~~1:1000 FC~~1:10~50 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	ACER3 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ACER3
Synonyms	APHC, PHCA

Function	Endoplasmic reticulum and Golgi ceramidase that catalyzes the hydrolysis of unsaturated long-chain C18:1-, C20:1- and C20:4- ceramides, dihydroceramides and phytoceramides into sphingoid bases like sphingosine and free fatty acids at alkaline pH (PubMed:11356846, PubMed:20068046, PubMed:20207939, PubMed:26792856, PubMed:30575723). Ceramides, sphingosine, and its phosphorylated form sphingosine-1- phosphate are bioactive lipids that mediate cellular signaling pathways regulating several biological processes including cell proliferation, apoptosis and differentiation (PubMed:20068046). Controls the generation of sphingosine in erythrocytes, and thereby sphingosine-1- phosphate in plasma (PubMed:20207939). Through the regulation of ceramides and sphingosine-1-phosphate homeostasis in the brain may play a role in neurons survival and function (By similarity). By regulating the levels of pro-inflammatory ceramides in immune cells and tissues, may modulate the inflammatory response (By similarity).
Cellular Location	Endoplasmic reticulum membrane; Multi-pass membrane protein. Golgi apparatus membrane; Multi-pass membrane protein
Tissue Location	Ubiquitously expressed. Highly expressed in placenta (PubMed:11356846). Expressed in erythrocytes (PubMed:20207939).

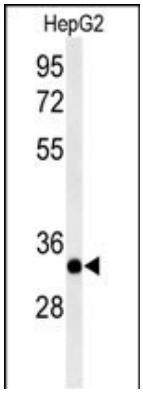
Background

ACER3 hydrolyzes only phytoceramide into phytosphingosine and free fatty acid. Does not have reverse activity.

References

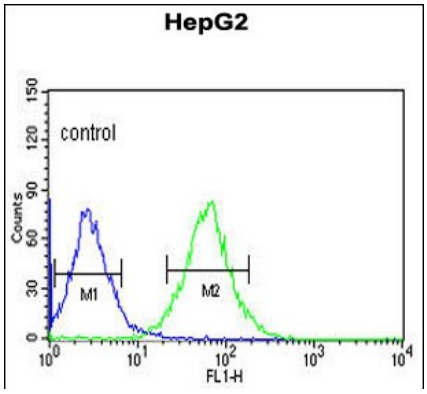
Wheeler,H.E., et.al., PLoS Genet. 5 (10), E1000685 (2009)
Mao,C. et.al., Biochim. Biophys. Acta 1781 (9), 424-434 (2008)

Images



Western blot analysis of ACER3 Antibody (C-term) (Cat. #AP8953b) in HepG2 cell line lysates (35ug/lane). ACER3 (arrow) was detected using the purified Pab.

ACER3 Antibody (C-term) (Cat. #AP8953b) flow cytometric analysis of HepG2 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.