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ACER3 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP8953b

Specification

ACER3 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession O9NUN7

ACER3 Antibody (C-term) Blocking Peptide - 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
The synthetic peptide sequence used to generate the antibody AP8953b was selected from the C-term region of human ACER3. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

ACER3 Antibody (C-term) Blocking Peptide - Protein Information

Name ACER3

ACER3 Antibody (C-term) Blocking Peptide - Background

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

ACER3 Antibody (C-term) Blocking Peptide - References

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

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:20068046, PubMed:26792856, PubMed:20207939, PubMed:11356846, 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 proinflammatory 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).

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ACER3 Antibody (C-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides