ARG66642
anti-ACER2 antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes ACER2
Tested Reactivity	Hu, Rat
Predict Reactivity	Ms, Mk
Tested Application	WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	ACER2
Species	Human
Immunogen	KLH-conjugated synthetic peptide within the center region of Human ACER2.
Conjugation	Un-conjugated
Alternate Names	AlkCDase 2; Acylsphingosine deacylase 3-like; N-acylsphingosine amidohydrolase 3-like; EC 3.5.1.23; ASAH3L; ALKCDase2; Alkaline ceramidase 2; Alkaline CDase 2; haCER2

Application Instructions

Application table

Application	Dilution
WB	1:500 - 1:1000

Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.
Observed Size	~ 32 kDa

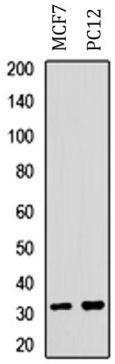
Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	0.42% Potassium phosphate (pH 7.3), 0.87% NaCl, 0.01% Sodium azide and 30% Glycerol.
Preservative	0.01% Sodium azide
Stabilizer	30% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	ACER2
Gene Full Name	alkaline ceramidase 2
Background	The sphingolipid metabolite sphingosine-1-phosphate promotes cell proliferation and survival, whereas its precursor, sphingosine, has the opposite effect. The ceramidase ACER2 hydrolyzes very long chain ceramides to generate sphingosine (Xu et al., 2006 [PubMed 16940153]). [supplied by OMIM, Jul 2010]
Function	Golgi ceramidase that catalyzes the hydrolysis of ceramides into sphingoid bases like sphingosine and free fatty acids at alkaline pH (PubMed:16940153, PubMed:18945876, PubMed:20207939, PubMed:20089856). 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:20207939). Has a better catalytic efficiency towards unsaturated long-chain ceramides, including C18:1-, C20:1- and C24:1-ceramides (PubMed:16940153, PubMed:18945876, PubMed:20207939, PubMed:20089856). Saturated long-chain ceramides and unsaturated very long-chain ceramides are also good substrates, whereas saturated very long-chain ceramides and short-chain ceramides are poor substrates (PubMed:20089856). Also hydrolyzes dihydroceramides to produce dihydrosphingosine (PubMed:20207939, PubMed:20628055). It is the ceramidase that controls the levels of circulating sphingosine-1-phosphate and dihydrosphingosine-1-phosphate in plasma through their production by hematopoietic cells (By similarity). Regulates cell proliferation, autophagy and apoptosis by the production of sphingosine and sphingosine-1-phosphate (PubMed:16940153, PubMed:26943039, PubMed:28294157, PubMed:29229990). As part of a p53/TP53-dependent pathway, promotes for instance autophagy and apoptosis in response to DNA damage (PubMed:26943039, PubMed:28294157, PubMed:29229990). Through the production of sphingosine, may also regulate the function of the Golgi complex and regulate the glycosylation of proteins (PubMed:18945876). [UniProt]
Calculated Mw	31 kDa
Cellular Localization	Golgi apparatus membrane; Multi-pass membrane protein. [UniProt]

Images



ARG66642 anti-ACER2 antibody WB image

Western blot: MCF7 and PC12 whole cell lysates stained with ARG66642 anti-ACER2 antibody.