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SIDT2 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13596c

Product Information

Application	WB, E
Primary Accession	Q8NBJ9
Other Accession	D3ZEH5, Q8CIF6, NP_001035545.1
Reactivity	Human, Mouse
Predicted	Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB32903
Calculated MW	94454
Antigen Region	418-447

Additional Information

Gene ID	51092
Other Names	SID1 transmembrane family member 2, SIDT2
Target/Specificity	This SIDT2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 418-447 amino acids from the Central region of human SIDT2.
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	SIDT2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SIDT2
Function	Mediates the translocation of RNA and DNA across the lysosomal membrane during RNA and DNA autophagy (RDA), a process in which RNA or DNA is directly imported into lysosomes in an ATP- dependent manner, and

degraded (PubMed:27046251, PubMed:27846365). Involved in the uptake of single-stranded oligonucleotides by living cells, a process called gymnosis (PubMed:28277980). In vitro, mediates the uptake of linear DNA more efficiently than that of circular DNA, but exhibits similar uptake efficacy toward RNA and DNA. Binds long double-stranded RNA (dsRNA) (500 - 700 base pairs), but not dsRNA shorter than 100 bp (By similarity).

Cellular Location

Lysosome membrane; Multi-pass membrane protein. Cell membrane. Note=Mainly localizes to lysosomes and only partly to the plasma membrane (PubMed:28277980). Lysosomal localization is required for SIDT2-mediated intracellular degradation of endogenous RNA (By similarity). {ECO:0000250|UniProtKB:Q8CIF6, ECO:0000269|PubMed:28277980}

Background

SIDT2 belongs to the SID1 family. It is a multi-pass membrane protein. The exact function of SIDT2 remains unknown.

References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :
Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009)
Olsen, J.V., et al. Cell 127(3):635-648(2006)
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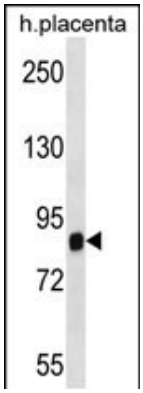
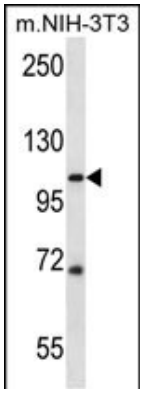
Images



SIDT2 Antibody (Center) (Cat. #AP13596c) western blot analysis in human placenta tissue lysates (35ug/lane).This demonstrates the SIDT2 antibody detected the SIDT2 protein (arrow).



SIDT2 Antibody (Center) (Cat. #AP13596c) western blot analysis in mouse NIH-3T3 cell line lysates (35ug/lane).This demonstrates the SIDT2 antibody detected the SIDT2 protein (arrow).

Citations

- Spontaneous nonalcoholic fatty liver disease and ER stress in Sidt2 deficiency mice.