10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CIDEC Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP18249c

Product Information

Application	WB, E
Primary Accession	Q96AQ7
Other Accession	NP_071377.2
Reactivity	Human
Predicted	Mouse, Bovine, Canine, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB37839
Calculated MW	26754
Antigen Region	97-126

Additional Information

Gene ID	63924
Other Names	Cell death activator CIDE-3, Cell death-inducing DFFA-like effector protein C, Fat-specific protein FSP27 homolog, CIDEC, FSP27
Target/Specificity	This CIDEC antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 97-126 amino acids from the Central region of human CIDEC.
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	CIDEC Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CIDEC {ECO:0000303|PubMed:20049731, ECO:0000312|HGNC:HGNC:24229}
Function	Lipid transferase specifically expressed in white adipose tissue, which promotes unilocular lipid droplet formation by mediating lipid droplet fusion

(PubMed:18334488, PubMed:19843876, PubMed:20049731, PubMed:23399566, PubMed:30361435). Lipid droplet fusion promotes their enlargement, restricting lipolysis and favoring lipid storage (PubMed:18334488, PubMed:19843876, PubMed:20049731, PubMed:23399566). Localizes on the lipid droplet surface, at focal contact sites between lipid droplets, and mediates atypical lipid droplet fusion by undergoing liquid-liquid phase separation (LLPS) and promoting directional net neutral lipid transfer from the smaller to larger lipid droplets (PubMed:18334488, PubMed:19843876, PubMed:20049731, PubMed:23399566). The transfer direction may be driven by the internal pressure difference between the contacting lipid droplet pair (PubMed:18334488, PubMed:19843876, PubMed:20049731, PubMed:23399566). Its role in neutral lipid transfer and lipid droplet enlargement is activated by the interaction with PLIN1 (PubMed:23399566). May also act as a CEBPB coactivator in the white adipose tissue to control the expression of a subset of CEBPB downstream target genes, including SOCS1, SOCS3, TGFB1, TGFBR1, ID2 and XDH (By similarity). When overexpressed in preadipocytes, induces apoptosis or increases cell susceptibility to apoptosis induced by serum deprivation or TGFB treatment (PubMed:12429024).

Cellular Location

Lipid droplet. Endoplasmic reticulum {ECO:0000250|UniProtKB:P56198}. Nucleus {ECO:0000250|UniProtKB:P56198} Note=Diffuses quickly on lipid droplet surface, but becomes trapped and clustered at lipid droplet contact sites, thereby enabling its rapid enrichment at lipid droplet contact sites {ECO:0000250|UniProtKB:P56198}

Tissue Location

Expressed mainly in adipose tissue, small intestine, heart, colon and stomach and, at lower levels, in brain, kidney and liver.

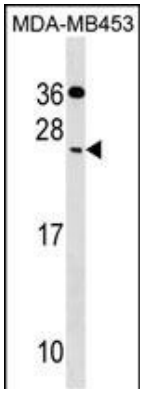
Background

DNA fragmentation factor (DFF) induces the fragmentation of DNA associated with apoptosis. A novel family of cell death-inducing DFF45 (MIM 601882)-like effectors (CIDEs), including CIDEC, can also promote apoptosis (Liang et al., 2003 [PubMed 12429024]).

References

Ito, M., et al. J. Lipid Res. 51(7):1676-1684(2010)
Nian, Z., et al. J. Biol. Chem. 285(13):9604-9615(2010)
Hall, A.M., et al. Obesity (Silver Spring) 18(2):417-419(2010)
Rubio-Cabezas, O., et al. EMBO Mol Med 1(5):280-287(2009)
Magnusson, B., et al. Metab. Clin. Exp. 57(9):1307-1313(2008)

Images



CIDEC Antibody (Center) (Cat. #AP18249c) western blot analysis in MDA-MB453 cell line lysates (35ug/lane).This demonstrates the CIDEC antibody detected the CIDEC protein (arrow).

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