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

Anti-CIDEC Antibody

Catalog # AP95777

Product Information

Application	WB, FC, IF/IC
Primary Accession	Q96AQ7
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	26754

Additional Information

Gene ID	63924
Other Names	FSP27; Cell death activator CIDE-3; Cell death-inducing DFFA-like effector protein C; Fat-specifIC, protein FSP27 homolog
Target/Specificity	Recombinant fusion protein of human CIDEC expressed in E. Coli
Dilution	WB~~WB (1/500 - 1/1000) FC~~FC (1/100 - 1/200) IF/IC~~N/A
Format	Mouse IgG1. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

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).

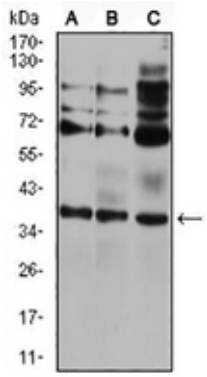
Cellular Location

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}

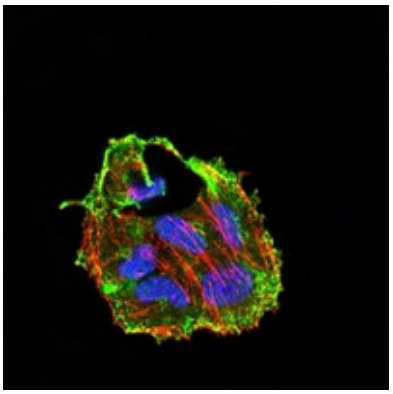
Tissue Location

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

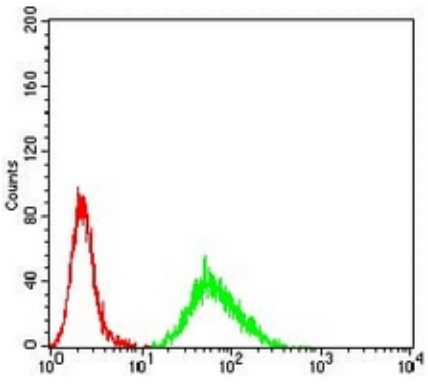
Images



Western blot analysis of CIDEC expression in HEK293 (A), A431 (B), HCT116 (C) whole cell lysates. (Predicted band size: 27 kD; Observed band size: 38 kD)



Immunofluorescent analysis of CIDEC staining in Hela cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with an AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).



Flow cytometric analysis of HeLa cells using Anti-CIDEC Antibody (green) and negative control (red).

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