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FSP27 / CIDEC Antibody
Rabbit Polyclonal Antibody
Catalog # ALS16911

Specification

FSP27 / CIDEC Antibody - Product Information

Application	**IHC, IF, WB**
Primary Accession	Q96AQ7
Other Accession	63924
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**26754**

FSP27 / CIDEC Antibody - Additional Information

Gene ID 63924

Other Names
CIDEC, CIDE3, CIDE-3, FSP27, Cell death activator CIDE-3, CIDEX, Fat specific protein 27

Target/Specificity
Human CIDEC / FSP27

Reconstitution & Storage
PBS, pH 7, 1% BSA, 20% Glycerol, 0.01% Thimerosal. Aliquot and freeze at -20° C. Avoid freeze-thaw cycles.

Precautions
FSP27 / CIDEC Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

FSP27 / CIDEC Antibody - 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:<a

href="http://www.uniprot.org/citations/20049731" target="_blank">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.

Volume
50 µl

FSP27 / CIDEC Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

FSP27 / CIDEC Antibody - Images

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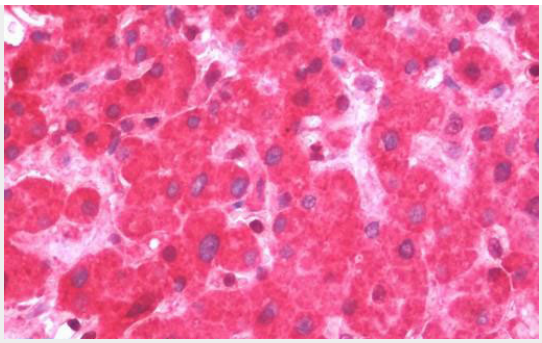
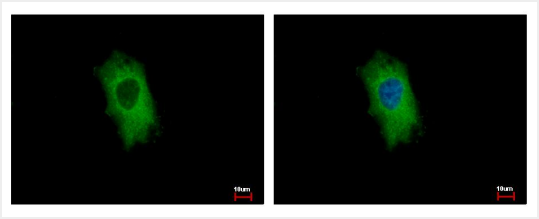
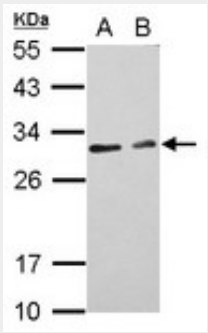


Anti-FSP27 / CIDEC antibody IHC staining of human liver.



CIDEC antibody detects CIDEC protein at cytoplasm by immunofluorescent analysis.



Sample (30 ug of whole cell lysate) A: HeLa B: HepG2 12% SDS PAGE CIDEC / FSP27 antibody diluted...

FSP27 / CIDEC Antibody - Background

Binds to lipid droplets and regulates their enlargement, thereby restricting lipolysis and favoring storage. At focal contact sites between lipid droplets, promotes directional net neutral lipid transfer from the smaller to larger lipid droplets. The transfer direction may be driven by the internal pressure difference between the contacting lipid droplet pair. Its role in neutral lipid transfer and lipid droplet enlargement is activated by the interaction with PLIN1. May 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. When overexpressed in preadipocytes, induces apoptosis or increases cell susceptibility to apoptosis induced by serum deprivation or TGFB treatment. As mature adipocytes, that express high CIDEC levels, are quite resistant to apoptotic stimuli, the physiological significance of its role in apoptosis is unclear. May play a role in the modulation of the response to osmotic stress by preventing NFAT5 to translocate into the nucleus and activate its target genes expression.

FSP27 / CIDEC Antibody - References

Liang L.,et al.Biochem. J. 370:195-203(2003).
Liang L.,et al.Submitted (AUG-2003) to the EMBL/GenBank/DDBJ databases.
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Muzny D.M.,et al.Nature 440:1194-1198(2006).

Keller P.,et al.J. Biol. Chem. 283:14355-14365(2008).