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CIDE-A Antibody

Catalog # ASC10052

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	O60543
Other Accession	AF041378, 3114595
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	24687
Conjugate	Unconjugated
Application Notes	CIDE-A antibody can be used for detection of CIDE-A by Western blot at 2 g/mL. An approximately 23 kDa band can be detected. Antibody can also be used for immunohistochemistry starting at 5 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	1149
Other Names	CIDE-A Antibody: CIDE-A, Cell death activator CIDE-A, Cell death-inducing DFFA-like effector A, cell death-inducing DFFA-like effector a
Target/Specificity	CIDEA; It has no cross activity to CIDE-B.
Reconstitution & Storage	CIDE-A antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	CIDE-A Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CIDEA {ECO:0000303|PubMed:18509062, ECO:0000312|HGNC:HGNC:1976}
Function	Lipid transferase that promotes unilocular lipid droplet formation by mediating lipid droplet fusion (PubMed:19843876, PubMed:26118629). Lipid droplet fusion promotes their enlargement, restricting lipolysis and favoring lipid storage (PubMed:19843876). Localizes on the lipid droplet surface, at focal contact sites between lipid droplets, and mediates atypical lipid droplet fusion by promoting directional net neutral lipid transfer from the smaller to larger lipid droplets (By similarity). The transfer direction may be driven by the internal pressure difference between the contacting lipid droplet pair and occurs at a lower rate than that promoted by CIDEC (By similarity). May also

	act as a CEBPB coactivator in epithelial cells to control the expression of a subset of CEBPB downstream target genes, including ID2, IGF1, PRLR, SOCS1, SOCS3, XDH, but not casein (By similarity). By interacting with CEBPB, strengthens the association of CEBPB with the XDH promoter, increases histone acetylation and dissociates HDAC1 from the promoter (By similarity). When overexpressed, induces apoptosis; the physiological significance of its role in apoptosis is unclear (By similarity).
Cellular Location	Lipid droplet. Nucleus {ECO:0000250|UniProtKB:O70302}. Note=Enriched at lipid droplet contact sites.
Tissue Location	Expressed in omental and subcutaneous adipose tissue (at protein level).

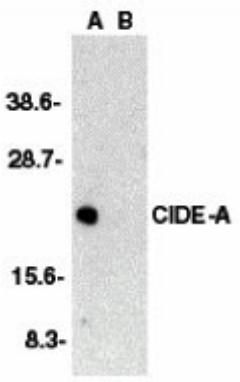
Background

CIDE-A Antibody: Apoptosis is related to many diseases and induced by a family of cell death receptors. Cell death signals are transduced by DD-, DED-, or CARD-containing molecules and members of the caspase family of proteases. These death signals finally cause the degradation of chromosomal DNA by activated DNase DFF40/CAD, which is chaperoned and inhibited by DFF45/ICAD. DFF45 related proteins CIDE-A and CIDE-B (for cell death-inducing DFF-like effector A and B) were recently identified. CIDE contains a new type of domain termed CIDE-N, which has high homology with the regulatory domains of DFF45/ICAD and DFF40/CAD. Expression of CIDE-A induces DNA fragmentation and activates apoptosis, which is inhibited by DFF45. CIDE-A is expressed in many tissues.

References

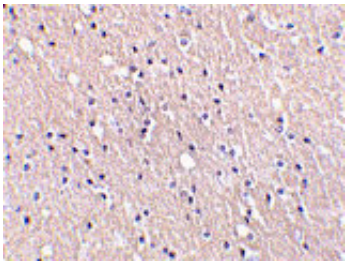
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Sakahira H, Enari M, Nagata S. Cleavage of CAD inhibitor in CAD activation and DNA degradation during apoptosis. Nature 1998;391:96-99
Liu X, Li P, Widlak P, Zou H, Luo X, Garrard WT, Wang X The 40-kDa subunit of DNA fragmentation factor induces DNA fragmentation and chromatin condensation during apoptosis. Proc Natl Acad Sci USA 1998;95:8461-6
Inohara N, Koseki T, Chen S, Wu X, Nunez G. CIDE, a novel family of cell death activators with homology to the 45 kDa subunit of the DNA fragmentation factor. EMBO J 1998;17:2526-33

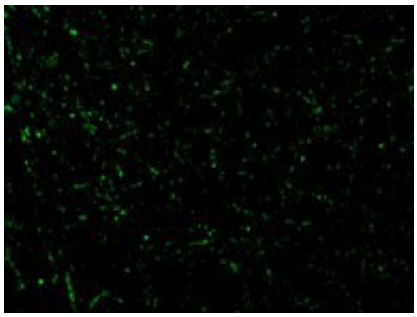
Images



Western blot analysis of CIDE-A in human brain tissue lysate in the absence (A) or presence (B) of peptide (APS10052P) with CIDE-A antibody at 1:2000 dilution.

Immunohistochemistry of CIDE-A in human brain tissue with CIDE-A antibody at 5 µg/mL.





Immunofluorescence of CIDE-A in Human Brain cells with CIDE-A antibody at 20 µg/mL.

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