

CIDE-A Antibody
Catalog # ASC10052**Specification****CIDE-A Antibody - Product Information**

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

CIDE-A Antibody - Additional InformationGene 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°C for three months and -20°C, 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.

CIDE-A Antibody - 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 CIDEA (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

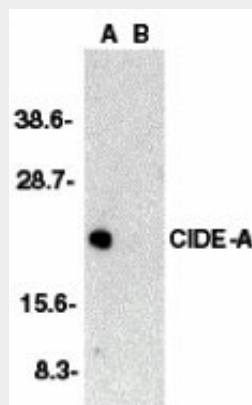
Expressed in omental and subcutaneous adipose tissue (at protein level).

CIDE-A Antibody - Protocols

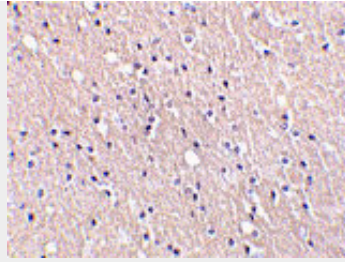
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

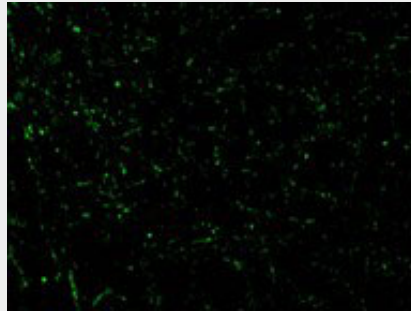
CIDE-A Antibody - Images



Western blot analysis of CIDE-A in human brain tissue lysate in the absence (A) or presence (B) of peptide (2085P) 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.

CIDE-A Antibody - 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.

CIDE-A Antibody - References

Liu X, Zou H, Slaughter C, Wang X. DFF, a heterodimeric protein that functions downstream of caspase-3 to trigger DNA fragmentation during apoptosis. *Cell* 1997;89:175-184

2. Enari M, Sakahira H, Yokoyama H, Okawa K, Iwamatsu A, Nagata S. A caspase-activated DNase that degrades DNA during apoptosis, and its inhibitor ICAD. *Nature* 1998;391:43-50

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