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

CIDE-A Antibody
Catalog # ASC10053

Specification

CIDE-A Antibody - Product Information

Application	**WB, IHC, IF**
Primary Accession	O60543
Other Accession	NP_031728, 1149
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**25 kDa KDa**
Application Notes	**CIDE-A antibody can be used for detection of CIDE-A by Western blot at 0.5 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL. For immunofluorescence start at 20 µg/mL.**

CIDE-A Antibody - 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
CIDE-A antibody was raised against an 18 amino acid peptide near the carboxy terminus of mouse CIDE-A.

The immunogen is located within the last 50 amino acids of CIDE-A.

Reconstitution & Storage
Antibody can be stored at 4°C up to one year. 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 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.

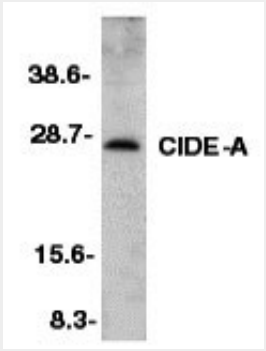
Tissue Location
Expressed in omental and subcutaneous adipose tissue (at protein level).

CIDE-A Antibody - Protocols

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

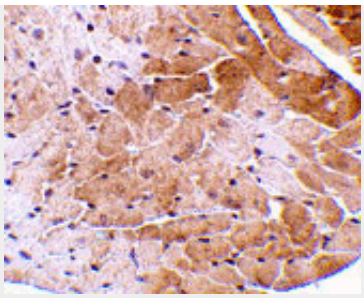
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

CIDE-A Antibody - Images

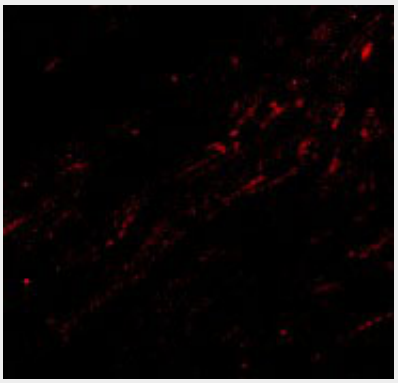


Western blot analysis of CIDE-A in mouse heart tissue lysate with CIDE-A antibody at 1:500 dilution.

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



Immunohistochemistry of CIDE-A in mouse heart tissue with CIDE-A antibody at 5 µg/mL.



Immunofluorescence of CIDE-A in Mouse Heart cells with CIDE-A antibody at 20 ug/mL.

CIDE-A Antibody - Background

CIDE-A Antibody: Apoptosis is related to many diseases and induced by a family of cell death receptors and their ligands. Cell death signals are transduced by death domain containing adapter molecules and members of the caspase family of proteases. These death signals finally cause the degradation of chromosomal DNA by activated DNase. DFF45/ICAD has been identified as inhibitor of caspase activated DNase DFF40/CAD. 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 a DFF45-inhibitable effector that promotes cell death and DNA fragmentation. CIDE-A is expressed in many tissues.

CIDE-A Antibody - References

Inohara N, Koseki T, Chen S, et al. 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
Inohara N, Koseki T, Chen S, et al. Identification of regulatory and catalytic domains in the apoptosis nuclease DFF40/CAD. J Biol Chem 1999 ;274:270-4 (RD1299)