

CISD2 Antibody
Catalog # ASC11643**Specification**

CISD2 Antibody - Product Information

Application	WB, IHC, IF
Primary Accession	Q8N5K1
Other Accession	NP_001008389 , 56605994
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	Predicted: 15 kDa

Application Notes	Observed: 15 kDa KDa CISD2 antibody was raised against a 15 amino acid peptide near the center of human CISD2.
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CISD2 Antibody - Additional Information

Gene ID	493856
Target/Specificity	
CISD2;	

Reconstitution & Storage

CISD2 antibody can be stored at 4°C for three months and -20°C, stable for up to one year.

Precautions

CISD2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

CISD2 Antibody - Protein Information

Name CISD2

Synonyms CDGSH2, ERIS, ZCD2

Function

Regulator of autophagy that contributes to antagonize BECN1- mediated cellular autophagy at the endoplasmic reticulum. Participates in the interaction of BCL2 with BECN1 and is required for BCL2-mediated depression of endoplasmic reticulum Ca(2+) stores during autophagy. Contributes to BIK-initiated autophagy, while it is not involved in BIK-dependent activation of caspases. Involved in life span control, probably via its function as regulator of autophagy.

Cellular Location

Endoplasmic reticulum membrane; Single-pass membrane protein. Mitochondrion outer membrane; Single-pass membrane protein. Note=According to PubMed:20010695, it mainly localizes to the endoplasmic reticulum. However, experiments in mouse showed that it mainly

localizes to the mitochondrion outer membrane

Tissue Location

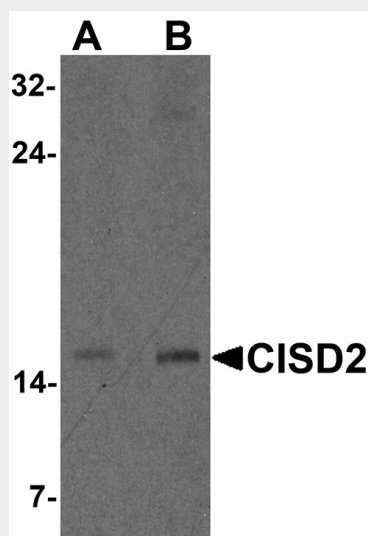
Testis, small intestine, kidney, lung, brain, heart, pancreas and platelets.

CISD2 Antibody - Protocols

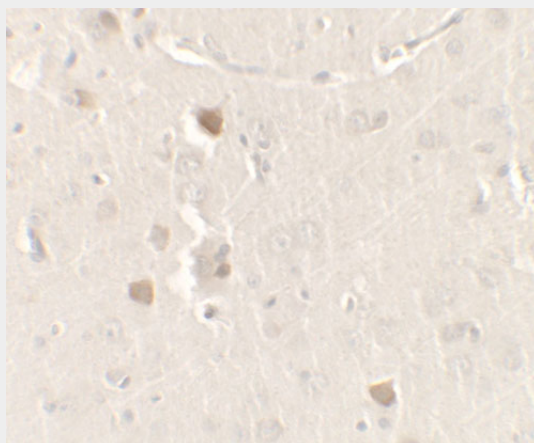
Provided below are standard protocols that you may find useful for product applications.

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

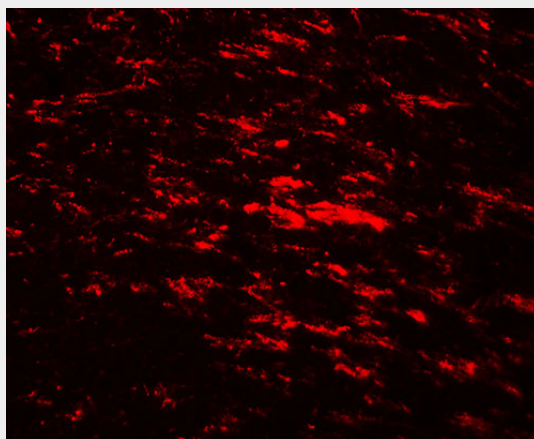
CISD2 Antibody - Images



Western blot analysis of CISD2 in rat brain tissue lysate with CISD2 antibody at (A) 1 and (B) 2 µg/m



Immunohistochemistry of CISD2 in rat brain tissue with CISD2 antibody at 2.5 µg/ml.



Immunofluorescence of CISD2 in rat brain tissue with CISD2 antibody at 20 µg/ml.

CISD2 Antibody - Background

CISD2 Antibody: Defects in the CISD2 (CDGSH iron sulfur domain 2) gene are a cause of the neurodegenerative disorder Wolfram syndrome 2. CISD2 is a zinc finger protein that localizes to the endoplasmic reticulum and mitochondria and binds an iron/sulfur cluster. CISD2 interacts with Bcl-2 and can be displaced by the BH3-only protein BIK and contributes to the regulation of BIK-initiated autophagy. CISD2 deficiency in mice causes mitochondrial breakdown accompanied by autophagic cell death as well as the development of premature aging phenotype.

CISD2 Antibody - References

Amr S, Heisey C, Zhang M, et al. A homozygous mutation in a novel zinc-finger protein, ERIS, is responsible for Wolfram syndrome 2. *Am. J. Hum. Genet.* 2007; 81:673-83.
Chang NC, Nguyen M, Germain M, et al. Antagonism of Beclin 1-dependent autophagy by BCL-2 at the endoplasmic reticulum requires NAF-1. *EMBO J.* 2010; 29:606-18.
Chen YF, Kao CH, Chen YT, et al. Cisd2 deficiency drives premature aging and causes mitochondria-mediated defects in mice.