Rabbit CISD2 Polyclonal Antibody | anti-CISD2 antibody

Anti-CISD2 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA19311	**Rabbit**	**Human, Mouse, Rat, Monkey**	**Western Blot, Immunohistochemistry, Immunocytochemistry, Immunofluorescence, Flow Cytometry, Functional Assay, ELISA**

PRODUCT SYNONYMS

CISD2; Polyclonal Antibody; Anti-CISD2 Antibody; CDGSH2; ERIS; ZCD2; CDGSH iron-sulfur domain-containing protein 2; Endoplasmic reticulum intermembrane small protein; MitoNEET-related 1 protein; Miner1; Nutrient-deprivation autophagy factor-1; NAF-1; CDGSH iron sulfur domain 2; anti-CISD2 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat, Monkey
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for CISD2 detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg NaN3.
Applicable Applications for anti-CISD2 antibody	WB (Western Blot), IHC (Immunohistochemistry), ICC (Immunocytochemistry), IF (Immunofluorescence), FCM/FACS (Flow Cytometry), ELISA (Direct ELISA)
Application Notes	WB: 0.25-0.5ug/ml|Human, Mouse, Rat, Monkey| IHC-P: 2-5ug/ml|Human, Rat| ICC/IF: 5ug/ml|Human| FC/FACS/FCM: 1-3ug/1x106 cells|Human| Direct ELISA: 0.1-0.5ug/ml|Human|
Immunogen	E Coli-derived human CISD2 recombinant protein (Position: A55-N124).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.

IMAGES

WB (Western Blot)

Figure 1. Western blot analysis of CISD2 using anti-CISD2 antibody (AAA19311).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.Lane 1: human HEK293 whole cell lysatesLane 2: human HELA whole cell lysatesLane 3: human MCF-7 whole cell lysatesLane 4: monkey kidney tissue lysatesLane 5: human SW620 whole cell lysatesLane 6: human Raji whole cell lysatesLane 7: rat kidney tissue lysatesLane 8: mouse kidney tissue lysates.After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1. 5 hour at RT. The membrane was incubated with rabbit anti-CISD2 antigen affinity purified polyclonal antibody (Catalog # AAA19311) at 0. 5 μg/mL overnight at 4 degree C, then washed with TBS-0. 1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1. 5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # with Tanon 5200 system. A specific band was detected for CISD2 at approximately 15KD. The expected band size for CISD2 is at 15KD.

FCM (Flow Cytometry)

Figure 6. Flow Cytometry analysis of U20S cells using anti-CISD2 antibody (AAA19311).Overlay histogram showing U20S cells stained with AAA19311 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CISD2 Antibody (AAA19311,1μg/1x106 cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10μg/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1μg/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

IF (Immunofluorescence)

Figure 5. IF analysis of CISD2 using anti-CISD2 antibody (AAA19311).CISD2 was detected in immunocytochemical section of A431 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5μg/mL rabbit anti-CISD2 Antibody (AAA19311) overnight at 4 degree C. DyLight®488 Conjugated Goat Anti-Rabbit IgG was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

IHC (Immunohistochemistry)

Figure 4. IHC analysis of CISD2 using anti-CISD2 antibody (AAA19311).CISD2 was detected in paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml rabbit anti-CISD2 Antibody (AAA19311) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen.

IHC (Immunohistochemistry)

Figure 3. IHC analysis of CISD2 using anti-CISD2 antibody (AAA19311).CISD2 was detected in paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml rabbit anti-CISD2 Antibody (AAA19311) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen.

IHC (Immunohistochemistry)

Figure 2. IHC analysis of CISD2 using anti-CISD2 antibody (AAA19311).CISD2 was detected in paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml rabbit anti-CISD2 Antibody (AAA19311) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen.

ADDITIONAL INFORMATION

Related Product Information for anti-CISD2 antibody	CDGSH iron sulfur domain 2 is a protein that in humans is encoded by the CISD2 gene. The protein encoded by this gene is a zinc finger protein that localizes to the endoplasmic reticulum. The encoded protein binds an iron/sulfur cluster and may be involved in calcium homeostasis. Defects in this gene are a cause of Wolfram syndrome 2.

References	1. Amr, S., Heisey, C., Zhang, M., Xia, X. -J., Shows, K. H., Ajlouni, K., Pandya, A., Satin, L. S., El-Shanti, H., Shiang, R. A homozygous mutation in a novel zinc-finger protein, ERIS, is responsible for Wolfram syndrome 2. Am. J. Hum. Genet. 81: 673-683, 2007. 2. Cattaneo, M., La Sala, L., Rondinelli, M., Errichiello, E., Zuffardi, O., Puca, A. A., Genovese, S., Ceriello, A. A donor splice site mutation in CISD2 generates multiple truncated, non-functional isoforms in Wolfram syndrome type 2 patients. BMC Med. Genet. 18: 147, 2017. 3. Chang, N. C., Nguyen, M., Bourdon, J., Risse, P. -A., Martin, J., Danialou, G., Rizzuto, R., Petrof, B. J., Shore, G. C. Bcl-2-associated autophagy regulator Naf-1 required for maintenance of skeletal muscle. Hum. Molec. Genet. 21: 2277-2287, 2012.

NCBI AND UNIPROT INFORMATION

NCBI GI #	56605994
NCBI GeneID	493856
NCBI Accession #	NP_001008389
NCBI GenBank Nucleotide #	NM_001008388.4
UniProt Accession #	Q8N5K1; Q7Z3D5
Molecular Weight	Predicted: 15 kDa Observed: 15 kDa
NCBI Official Full Name	CDGSH iron-sulfur domain-containing protein 2
NCBI Official Synonym Full Names	CDGSH iron sulfur domain 2
NCBI Official Symbol	CISD2
NCBI Official Synonym Symbols	ERIS; WFS2; ZCD2; NAF-1; Miner1
NCBI Protein Information	CDGSH iron-sulfur domain-containing protein 2; mitoNEET-related 1 protein; zinc finger, CDGSH-type domain 2; nutrient-deprivation autophagy factor-1; endoplasmic reticulum intermembrane small protein
UniProt Protein Name	CDGSH iron-sulfur domain-containing protein 2
UniProt Gene Name	**CISD2**
UniProt Synonym Gene Names	CDGSH2; ERIS; ZCD2; Miner1; NAF-1
UniProt Entry Name	CISD2_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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