

**CISD1 Polyclonal Antibody**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP55357****Specification**

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**CISD1 Polyclonal Antibody - Product Information**

Application	IHC-P
Primary Accession	<a href="#">O9NZ45</a>
Reactivity	Rat, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	12199

**CISD1 Polyclonal Antibody - Additional Information****Gene ID** 55847**Other Names**

CDGSH iron-sulfur domain-containing protein 1, MitoNEET, CISD1, C10orf70, ZCD1

**Format**

0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

**Storage**

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

**CISD1 Polyclonal Antibody - Protein Information****Name** CISD1**Synonyms** C10orf70, ZCD1**Function**

L-cysteine transaminase that catalyzes the reversible transfer of the amino group from L-cysteine to the alpha-keto acid 2-oxoglutarate to respectively form 2-oxo-3-sulfanylpropanoate and L-glutamate (PubMed: [36194135](http://www.uniprot.org/citations/36194135)). The catalytic cycle occurs in the presence of pyridoxal 5'-phosphate (PLP) cofactor that facilitates transamination by initially forming an internal aldimine with the epsilon-amino group of active site Lys-55 residue on the enzyme (PLP-enzyme aldimine), subsequently displaced by formation of an external aldimine with the substrate amino group (PLP-L-cysteine aldimine). The external aldimine is further deprotonated to form a carbanion intermediate, which in the presence of 2-oxoglutarate regenerates PLP yielding final products 2-oxo-3-sulfanylpropanoate and L-glutamate. The proton transfer in carbanion intermediate is suggested to be controlled by the active site lysine residue, whereas PLP stabilizes carbanion structure through electron delocalization, also known as the electron sink effect (PubMed: [36194135](http://www.uniprot.org/citations/36194135)). Plays a key role in regulating maximal capacity for electron transport and oxidative phosphorylation (By

similarity). May be involved in iron-sulfur cluster shuttling and/or in redox reactions. Can transfer the [2Fe-2S] cluster to an apo-acceptor protein only when in the oxidation state, likely serving as a redox sensor that regulates mitochondrial iron-sulfur cluster assembly and iron trafficking upon oxidative stress (PubMed:<a href="http://www.uniprot.org/citations/21788481" target="\_blank">21788481</a>, PubMed:<a href="http://www.uniprot.org/citations/23758282" target="\_blank">23758282</a>, PubMed:<a href="http://www.uniprot.org/citations/17584744" target="\_blank">17584744</a>).

**Cellular Location**

Mitochondrion outer membrane; Single-pass type III membrane protein

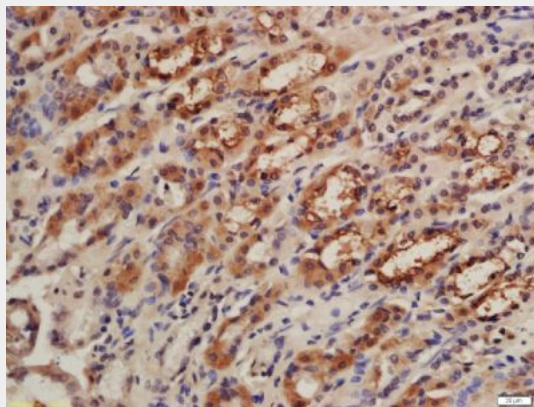
**Tissue Location**

Expression is reduced in cells derived from cystic fibrosis patients.

**CISD1 Polyclonal 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](#)

**CISD1 Polyclonal Antibody - Images**

Tissue/cell: rat stomach tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-CISD1 Polyclonal Antibody, Unconjugated(bs-13959R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining