

**NFS1 Polyclonal Antibody**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP57444****Specification****NFS1 Polyclonal Antibody - Product Information**

Application	IHC-P, IHC-F, IF, ICC, E
Primary Accession	<a href="#">Q9Y697</a>
Host	Rabbit
Clonality	Polyclonal
Calculated MW	50196

**NFS1 Polyclonal Antibody - Additional Information****Gene ID** 9054**Other Names**

Cysteine desulfurase, mitochondrial, 2.8.1.7, NFS1, NIFS

**Dilution**

IHC-P ~ ~ N/A  
IHC-F ~ ~ N/A  
IF ~ ~ 1:50 ~ 200  
ICC ~ ~ N/A  
E ~ ~ N/A

**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.

**NFS1 Polyclonal Antibody - Protein Information****Name** NFS1 {ECO:0000303|PubMed:18650437, ECO:0000312|HGNC:HGNC:15910}**Function**

[Isoform Mitochondrial]: Cysteine desulfurase, of the core iron-sulfur cluster (ISC) assembly complex, that catalyzes the desulfuration of L-cysteine to L-alanine, as component of the cysteine desulfurase complex, leading to the formation of a cysteine persulfide intermediate at the active site cysteine residue and participates in the [2Fe-2S] clusters assembly on the scaffolding protein ISCU (PubMed: [18650437](http://www.uniprot.org/citations/18650437), PubMed: [29097656](http://www.uniprot.org/citations/29097656), PubMed: [31101807](http://www.uniprot.org/citations/31101807)). The persulfide is then transferred on the flexible Cys loop from the catalytic site of NFS1 to the surface of NFS1 (PubMed: [29097656](http://www.uniprot.org/citations/29097656)). After the NFS1-linked persulfide sulfur is transferred to one of the conserved Cys residues of the scaffold, a

reaction assisted by FXN (By similarity). The core iron-sulfur cluster (ISC) assembly complex is involved in the de novo synthesis of a [2Fe-2S] cluster, the first step of the mitochondrial iron-sulfur protein biogenesis. This process is initiated by the cysteine desulfurase complex (NFS1:LYRM4:NDUFAB1) that produces persulfide which is delivered on the scaffold protein ISCU in a FXN- dependent manner. Then this complex is stabilized by FDX2 which provides reducing equivalents to accomplish the [2Fe-2S] cluster assembly. Finally, the [2Fe-2S] cluster is transferred from ISCU to chaperone proteins, including HSCB, HSPA9 and GLRX5 (By similarity).

**Cellular Location**

[Isoform Mitochondrial]: Mitochondrion

**Tissue Location**

Predominantly expressed in heart and skeletal muscle. Also found in brain, liver and pancreas

**NFS1 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](#)

**NFS1 Polyclonal Antibody - Images**