

# NFS1 (H-170): sc-98420

## BACKGROUND

NFS1 (nitrogen fixation 1), also known as NIFS or IscS (cysteine desulfurase), is a member of the class V pyridoxal-phosphate-dependent aminotransferase family. It localizes to the cytoplasm or mitochondrion depending on which form is generated based on cytosolic pH. Highest expression levels of NFS1 are found in heart and skeletal muscle. Lower levels of expression are also found in liver, brain and pancreas. NFS1 is responsible for catalyzing the removal of sulfur from cysteine to form alanine, thereby supplying the inorganic sulfur for iron-sulfur (Fe-S) clusters. Fe-S clusters function as essential cofactors in a wide variety of events, including >facilitation of electron transfer processes in oxidative phosphorylation, catalysis of >enzymatic reactions in aconitase and dehydratases and maintenance of >structural integrity in the DNA repair enzyme endonuclease III.

## REFERENCES

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- Li, K., Tong, W.H., Hughes, R.M. and Rouault, T.A. 2006. Roles of the mammalian cytosolic cysteine desulfurase, ISCS, and scaffold protein, ISCU, in iron-sulfur cluster assembly. *J. Biol. Chem.* 281: 12344-12351.
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## CHROMOSOMAL LOCATION

Genetic locus: NFS1 (human) mapping to 20q11.22; Nfs1 (mouse) mapping to 2 H1.

## SOURCE

NFS1 (H-170) is a rabbit polyclonal antibody raised against amino acids 288-457 mapping at the C-terminus of NFS1 of human origin.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

NFS1 (H-170) is recommended for detection of NFS1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

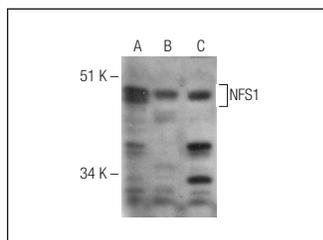
NFS1 (H-170) is also recommended for detection of NFS1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for NFS1 siRNA (h): sc-75911, NFS1 siRNA (m): sc-149946, NFS1 shRNA Plasmid (h): sc-75911-SH, NFS1 shRNA Plasmid (m): sc-149946-SH, NFS1 shRNA (h) Lentiviral Particles: sc-75911-V and NFS1 shRNA (m) Lentiviral Particles: sc-149946-V.

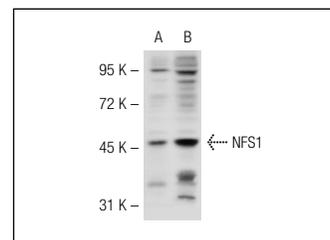
Molecular Weight of NFS1: 50 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Hep G2 cell lysate: sc-2227 or SK-N-MC cell lysate: sc-2237.

## DATA



NFS1 (H-170): sc-98420. Western blot analysis of NFS1 expression in HeLa (A), Hep G2 (B) and SK-N-MC (C) whole cell lysates.



NFS1 (H-170): sc-98420. Western blot analysis of NFS1 expression in 293T (A) and HeLa (B) whole cell lysates.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.


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Try **NFS1 (B-7): sc-365308** or **NFS1 (2635E1a): sc-81107**, our highly recommended monoclonal alternatives to NFS1 (H-170).