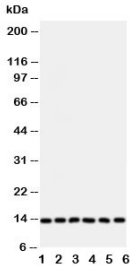
Glutaredoxin 2 Antibody / Mitochondrial Thioltransferase Antibody (R30985)

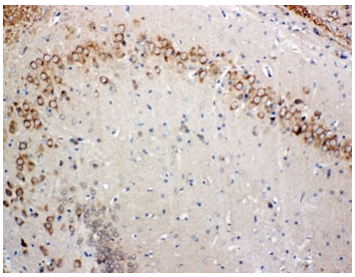
Catalog No.	Formulation	Size
R30985	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide/thimerosal
UniProt	Q9NS18
Applications	Western blot: 0.5-1ug/ml IHC (FFPE): 0.5-1ug/ml
Limitations	This Glutaredoxin 2 Antibody / Mitochondrial Thioltransferase Antibody is available for research use only.



Glutaredoxin 2 Antibody in Human HeLa and A549 Cells WB. Western blot testing of human HeLa and A549 whole-cell lysates with Glutaredoxin 2 Antibody shows a predominant band at approximately 18 kDa, consistent with the expected molecular weight of GLRX2. Lanes 1-2: HeLa and A549 cell lysates, respectively. The discrete band at the expected size supports detection of glutaredoxin-2 by this Mitochondrial Thioltransferase Antibody.



Glutaredoxin 2 Antibody in Human Breast Cancer IHC. Immunohistochemistry staining of FFPE human breast cancer tissue with Glutaredoxin 2 Antibody shows predominantly cytoplasmic staining within tumor cells, with variable staining intensity across the tissue section. The intracellular pattern is consistent with detection of GLRX2 by this Mitochondrial Thioltransferase Antibody.

Description

Glutaredoxin 2 Antibody / Mitochondrial Thioltransferase Antibody recognizes glutaredoxin-2, a member of the glutaredoxin family of small oxidoreductases that participate in glutathione-dependent redox reactions. Encoded by the GLRX2 gene, glutaredoxin-2 helps regulate the oxidation state of protein thiol groups and contributes to the maintenance of cellular redox homeostasis. Through reversible modification of cysteine residues, GLRX2 can influence the activity and stability of proteins exposed to changes in the intracellular redox environment.

Glutaredoxin-2 is particularly associated with mitochondrial redox regulation. The protein can catalyze glutathione-dependent thiol-disulfide exchange reactions, including deglutathionylation of protein cysteine residues. This activity can help restore proteins that have undergone reversible glutathionylation during oxidative stress. GLRX2 also contains an iron-sulfur cluster that contributes to regulation of its enzymatic activity and provides a connection between cellular redox conditions, iron-sulfur biology, and glutathione-dependent signaling.

Alternative transcription and splicing of the GLRX2 gene generate protein isoforms with different intracellular distributions. A mitochondrial isoform contains an N-terminal targeting sequence that directs it to mitochondria, while other forms can occur outside the organelle. Both mitochondrial and non-mitochondrial GLRX2 forms retain glutathione-dependent reductase activity, allowing the protein to participate in redox control across different cellular compartments.

Within mitochondria, GLRX2 has been studied in relation to oxidative stress, respiratory function, energy metabolism, and cell survival. Mitochondrial proteins are continuously exposed to reactive oxygen species generated during cellular respiration, making reversible thiol modification an important mechanism for regulating protein function and limiting oxidative damage. As a mitochondrial thioltransferase, glutaredoxin-2 therefore provides an important link between glutathione metabolism and redox-sensitive mitochondrial processes.

NSJ Bioreagents offers this Mitochondrial Thioltransferase Antibody for research into GLRX2 expression and redox biology. A Glutaredoxin 2 Antibody can support investigation of glutathione-dependent protein modification, mitochondrial redox regulation, oxidative stress responses, and mechanisms involved in maintaining cellular redox homeostasis.

For an alternative GLRX2 reagent with broader application validation, see our GLRX2 Antibody / Glutaredoxin-2 Mitochondrial Protein Antibody page.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the Glutaredoxin 2 Antibody / Mitochondrial Thioltransferase Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

An amino acid sequence from the middle region of human GLRX2 (EYGNQFQDALYKMTGER) was used as the immunogen for this Glutaredoxin 2 antibody.

Storage

After reconstitution, the Glutaredoxin 2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

GLRX2 antibody, Glutaredoxin 2 antibody, Glutaredoxin-2 antibody, GRX2 antibody, Mitochondrial thioltransferase antibody, Mitochondrial glutaredoxin antibody

Copyright © NSJ Bioreagents. All rights reserved.