

Product Information

Anti-Glutaredoxin-1

produced in rabbit, IgG fraction of antiserum

Catalog Number **SAB4200159**

Product Description

Anti-Glutaredoxin-1 is produced in rabbit using as immunogen a human glutaredoxin-1 (GeneID: 2745) recombinant protein (G5298), conjugated to KLH. The human protein shares ~90% homology with rat and mouse Glutaredoxin-1. IgG fraction of antiserum is purified from whole antiserum using protein A immobilized on agarose.

Anti-Glutaredoxin-1 recognizes human Glutaredoxin-1. The antibody may be used in various immunochemical techniques including immunoblotting (~12 kDa). Detection of the Glutaredoxin-1 band by immunoblotting is specifically inhibited by the immunizing protein.

Glutaredoxins (GRX) participate in thio-disulfide exchange reactions in the presence of GSH, NADPH, and glutathione reductase. Glutaredoxins and thioredoxins belong to related families of low molecular mass enzymes that catalyze thio-disulfide exchange reactions. These enzymes are involved in electron transport, formation of disulfide linkage, protein folding, and protein regulation by thiol redox control.^{1,2} Two GRX have been identified in mammals. GRX1 is found in the cytosol and supplies ribonucleotide reductase with electrons. It is involved in general disulfide-dithiol exchanges,² dehydroascorbate reduction,³ cellular differentiation,⁴ regulation of transcription factors^{5,6} and apoptosis.^{7,8} GRX2 has two isoforms (GRX2a and GRX2b) derived from alternative first exons. GRX2a is targeted to mitochondria; whereas, GRX2b is predicted to be localized in the nucleus.^{9,10} Unlike GRX1, GRX2 is not inhibited by oxidation of structural Cys residues.¹¹

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store at -20°C. For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working dilution of 1:500-1:1000 is recommended using whole extracts of human HepG2 cells.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining the optimal working dilutions by titration.

References

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ST,CS,SC,PHC 07/10-1