GPX4 Polyclonal Antibody

Catalog No: #29146

Package Size: #29146-1 50ul #29146-2 100ul

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

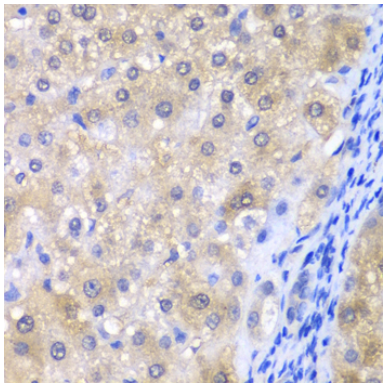
Description

Product Name	GPX4 Polyclonal Antibody
Host Species	Rabbit
Clonality	Polyclonal
Isotype	IgG
Purification	Affinity purification
Applications	WB,IHC,IF
Species Reactivity	Human;Mouse;Rat
Immunogen Description	Recombinant fusion protein of human GPX4 (NP_002076.2).
Conjugates	Unconjugated
Other Names	GPX4;GPx-4;GSHPx-4;MCSP;PHGPx;SMDS;snGPx;snPHGPx
Accession No.	GeneID:2879Swiss Prot:P36969
Calculated MW	19kDa/22kDa
SDS-PAGE MW	25kDa
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 287% glycerol.
Storage	Store at -20°C. Avoid freeze / thaw cycles.|Buffer: PBS with 0.02% sodium azide,50% glycerol,pH7.240.

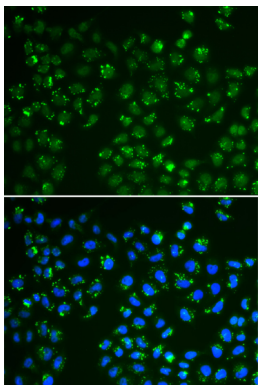
Application Details

WB□1:500 - 1:2000IHC□1:50 - 1:200IF□1:50 - 1:200

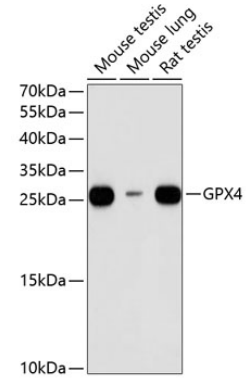
Images



Immunohistochemistry of paraffin-embedded human liver damage using GPX4 antibody at dilution of 1:200 .



Immunofluorescence analysis of A549 cells using GPX4 antibody . Blue: DAPI for nuclear staining.



Western blot analysis of extracts of various cell lines, using GPX4 antibody at 1:1000 dilution.

Background

The protein encoded by this gene belongs to the glutathione peroxidase family, members of which catalyze the reduction of hydrogen peroxide, organic hydroperoxides and lipid hydroperoxides, and thereby protect cells against oxidative damage. Several isozymes of this gene family exist in vertebrates, which vary in cellular location and substrate specificity. This isozyme has a high preference for lipid hydroperoxides and protects cells against membrane lipid peroxidation and cell death. It is also required for normal sperm development; thus, it has been identified as a 'moonlighting' protein because of its ability to serve dual functions as a peroxidase, as well as a structural protein in mature spermatozoa. Mutations in this gene are associated with Sedaghatian type of spondylometaphyseal dysplasia (SMDS). This isozyme is also a selenoprotein, containing the rare amino acid selenocysteine (Sec) at its active site. Sec is encoded by the UGA codon, which normally signals translation termination. The 3' UTRs of selenoprotein mRNAs contain a conserved stem-loop structure, designated the Sec insertion sequence (SECIS) element, that is necessary for the recognition of UGA as a Sec codon, rather than as a stop signal. Alternatively spliced transcript variants have been found for this gene.

Published Papers

Yuwen Liu;Jiping Liu;Naping Hu;Zhengrong Li;Anqi Liu;Ruyue Luo;Siyu Du;Dongyan Guo;Jiankang Li;Jialin Duan el at., Classical prescription Daqinjiao decoction inhibit cerebral ischemia/reperfusion induced necroptosis and ferroptosis through multiple mechanisms., , (2025)
PMID:39736347

Note: This product is for in vitro research use only and is not intended for use in humans or animals.