

GPX4 Antibody

Catalog No: #32506

Package Size: #32506-1 50ul #32506-2 100ul

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

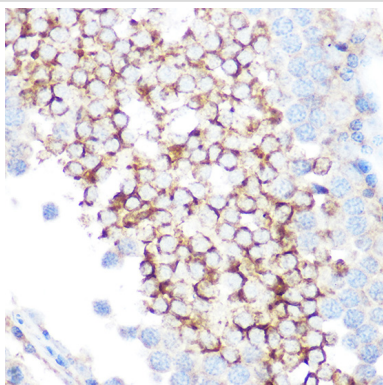
Description

Product Name	GPX4 Antibody
Host Species	Rabbit
Clonality	Polyclonal
Isotype	IgG
Purification	Affinity purification
Applications	WB,IHC,IF
Species Reactivity	Human,Mouse,Rat
Specificity	The antibody detects endogenous level of total GPX4 protein.
Immunogen Type	Recombinant Protein
Immunogen Description	Recombinant fusion protein of human GPX4 (NP_002076.2).
Conjugates	Unconjugated
Target Name	GPX4
Other Names	GPX4;GPx-4;GSHPx-4;MCSP;PHGPx;SMDS;snGPx;snPHGPx
Accession No.	Uniprot:P36969GeneID:2879
SDS-PAGE MW	22KDa
Concentration	1.0mg/ml
Formulation	PBS with 0.02% sodium azide,50% glycerol,pH7.3.
Storage	Store at -20°C. Avoid freeze / thaw cycles.

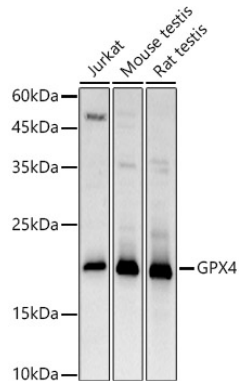
Application Details

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

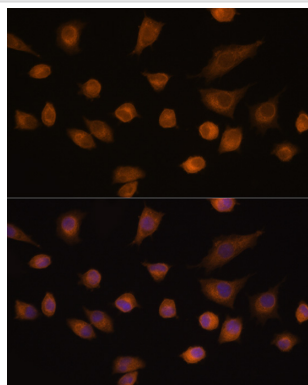
Images



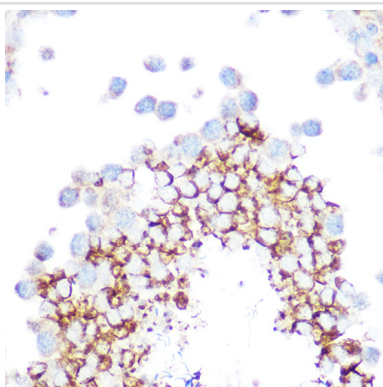
Immunohistochemistry of paraffin-embedded rat testis using GPX4 Rabbit pAb.



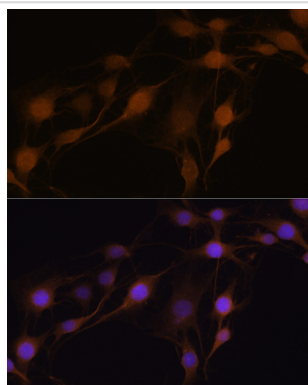
Western blot analysis of extracts of various cell lines, using GPX4 antibody.



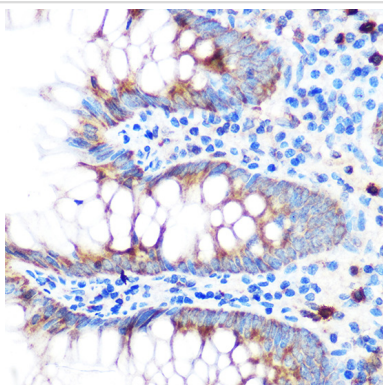
Immunofluorescence analysis of L929 cells using GPX4 Rabbit pAb.



Immunohistochemistry of paraffin-embedded mouse testis using GPX4 Rabbit pAb.



Immunofluorescence analysis of C6 cells using GPX4 Rabbit pAb.



Immunohistochemistry of paraffin-embedded human appendix using GPX4 Rabbit pAb.

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

el at., Heparanase-driven sequential released nanoparticles for ferroptosis and tumor microenvironment modulations synergism in breast cancer therapy. In Biomaterials on 2021 Jan by Jun Zhang, Jie Yang, et al..PMID:33035717, , (2021)

[PMID:33035717](#)

el at., c-Myc protects hepatocellular carcinoma cell from ferroptosis induced by glutamine deprivation via upregulating GOT1 and Nrf2InMol Biol RepOn2023 AugbyYuxiang Zhao?1,?Yue Wang et al..PMID:?37358765, , (2023)

[PMID:37358765](#)

el at., Gingerenone A induces ferroptosis in colorectal cancer via targeting suppression of SLC7A11 signaling pathway. In Biomed Pharmacother on 2024 Nov by Hongyu Xiao, Chen Chen, et al..PMID: 39393329, , (2024)

[PMID:39393329](#)

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](#)

Jin Yuan;Junwei Su;Shaowen Zhong;Xin Yuan;Jianping Zhu;Shuangxi Lu;Di Zhang;Guiling Li;Hanyu Xue;Min Yan;Lei Yue;Tianwu Zhang el at., Dictamnine alleviates DSS-induced colitis mice by inhibiting ferroptosis of enterocytes via activating Nrf2-Gpx4 signaling pathway., , (2025)

[PMID:40049578](#)

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