OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for TA327216

Glutathione Peroxidase 4 (GPX4) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, ICC/IF, IHC, WB
Recommended Dilution:	WB,1:15000 - 1:60000 IHC-P,1:50 - 1:200 IF/ICC,1:50 - 1:200 ELISA,Recommended starting concentration is 1 μg/mL. Please optimize the concentration based on your specific assay requirements.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Formulation:	Buffer: PBS with 0.09% Sodium azide,50% glycerol,pH7.3.
Concentration:	lot specific
Purification:	Affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C. Avoid freeze / thaw cycles.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	22kDa
Gene Name:	glutathione peroxidase 4
Database Link:	NP_002076 Entrez Gene 29328 RatEntrez Gene 625249 MouseEntrez Gene 2879 Human P36969

View online »

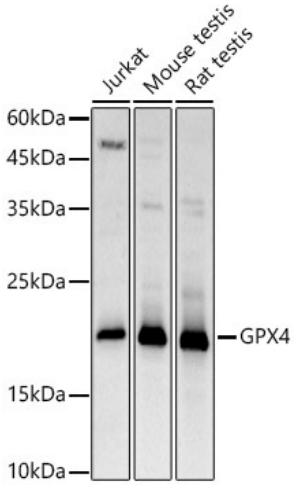
Background: The protein encoded by this gene belongs to the glutathione peroxidase family, members of which catalyze the reduction of hydrogen peroxide, organic hydroperoxides and lipid hydroperoxides, and thereby protect cells against oxidative damage. Several isozymes of this gene family exist in vertebrates, 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. Transcript variants resulting from alternative splicing or use of alternate promoters have been described to encode isoforms with different subcellular localization.

Synonyms: GPx-4; GSHPx-4; MCSP; PHGPx; snGPx; snPHGPx

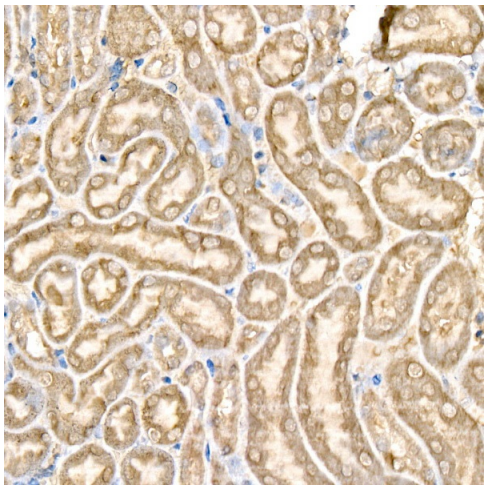
Protein Families: Druggable Genome

Protein Pathways: Arachidonic acid metabolism, Glutathione metabolism

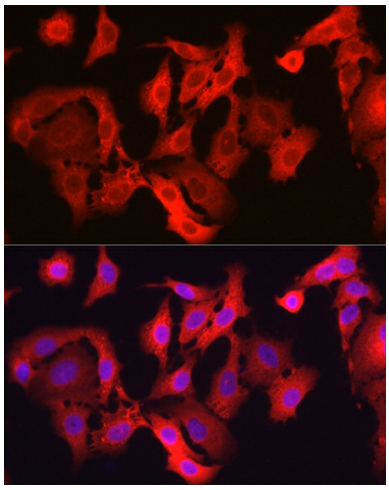
Product images:



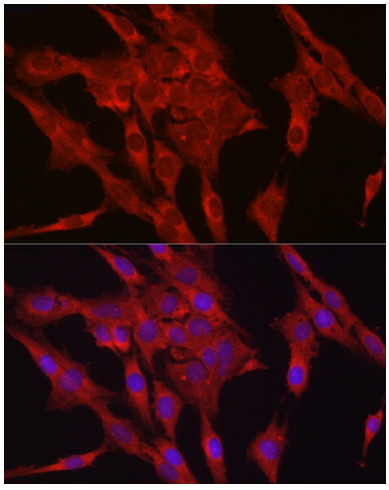
Western blot analysis of various lysates using [KD Validated] GPX4 Rabbit pAb (TA327216) at 1:15000 dilution incubated overnight at 4°C. Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution. Lysates/proteins: 25 µg per lane. Blocking buffer: 3% nonfat dry milk in TBST. Detection: ECL Basic Kit (RM00020). Exposure time: 10s.



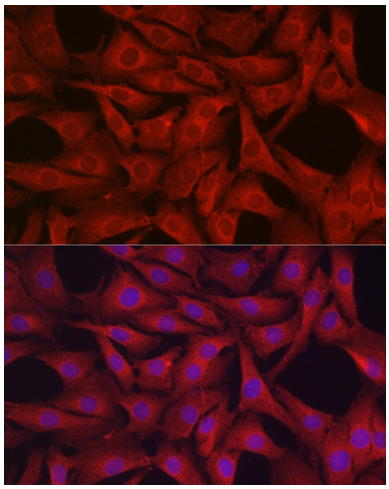
Western blot analysis of lysates from wild type (WT) and GPX4 knockdown (KD) U-87 MG cells using [KD Validated] GPX4 Rabbit pAb (TA327216) at 1:15000 dilution incubated overnight at 4°C. Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution. Lysates/proteins: 25 µg per lane. Blocking buffer: 3% nonfat dry milk in TBST. Detection: ECL Basic Kit (RM00020). Exposure time: 10s.



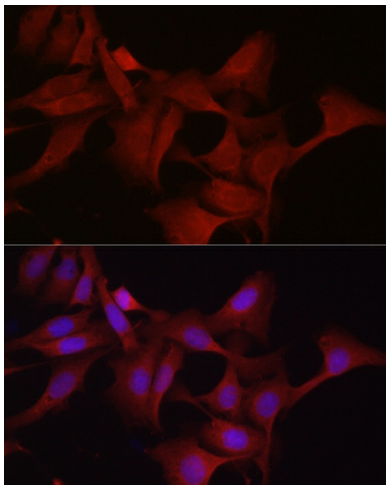
Immunohistochemistry analysis of paraffin-embedded Human appendix tissue using GPX4 Rabbit pAb (TA327216) at a dilution of 1:100 (40x lens). Microwave antigen retrieval was performed with 0.01 M Tris-EDTA repair solution (pH 9.0) prior to IHC staining.



Immunohistochemistry analysis of paraffin-embedded Mouse testis tissue using GPX4 Rabbit pAb (TA327216) at a dilution of 1:100 (40x lens). Microwave antigen retrieval was performed with 0.01 M Tris-EDTA repair solution (pH 9.0) prior to IHC staining.



Immunohistochemistry analysis of paraffin-embedded Rat testis tissue using GPX4 Rabbit pAb (TA327216) at a dilution of 1:100 (40x lens). Microwave antigen retrieval was performed with 0.01 M Tris-EDTA repair solution (pH 9.0) prior to IHC staining.



Immunofluorescence analysis of NIH/3T3 cells using GPX4 Rabbit pAb (TA327216) at dilution of 1:100 (40x lens). Secondary antibody: Cy3-conjugated Goat anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.