

Product datasheet for **TA376761**

Glutathione Peroxidase 4 (GPX4) Rabbit Polyclonal Antibody

Product data:

| | |
|-------------------------|-------------------------------------------------------------------------------------------------------------------|
| Product Type: | Primary Antibodies |
| Applications: | ICC/IF, WB |
| Recommended Dilution: | WB,1:500 - 1:2000 IHC,1:50 - 1:200 IF,1:50 - 1:200 |
| Reactivity: | Human, Mouse, Rat |
| Modifications: | Unmodified |
| Host: | Rabbit |
| Isotype: | IgG |
| Clonality: | Polyclonal |
| Immunogen: | Recombinant fusion protein containing a sequence corresponding to amino acids 30-197 of human GPX4 (NP_002076.2). |
| Formulation: | Buffer: PBS with 0.02% sodium azide,50% glycerol,pH7.3. |
| Concentration: | lot specific |
| Purification: | Affinity purification |
| Conjugation: | Unconjugated |
| Storage: | Store at -20°C. Avoid freeze / thaw cycles. |
| Stability: | Shelf life: one year from despatch. |
| Predicted Protein Size: | 19kDa/22kDa |
| Gene Name: | glutathione peroxidase 4 |
| Database Link: | Entrez Gene 2879 Human P36969 |



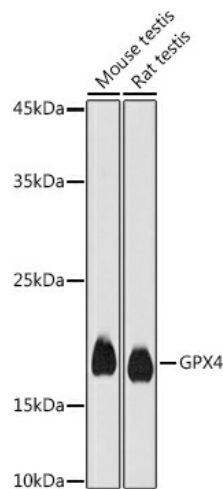
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Background:

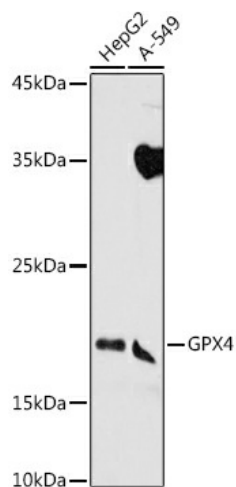
The protein encoded by this gene belongs to the glutathione peroxidase family, members of which catalyze the reduction of hydrogen peroxide, organic hydroperoxides and lipid hydroperoxides, and thereby protect cells against oxidative damage. Several isozymes of this gene family exist in vertebrates, 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.

Synonyms:

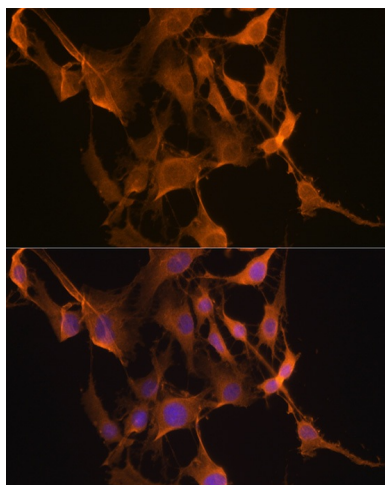
GPx-4; GSHPx-4; MCSP; PHGPx; snGPx; snPHGPx

Product images:

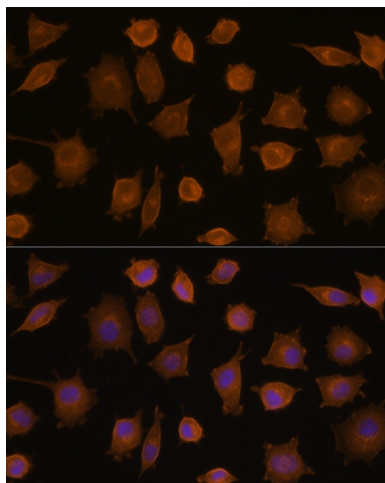
Western blot analysis of extracts of various cell lines, using GPX4 antibody (TA376761) at 1:500 dilution. | Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) at 1:10000 dilution. | Lysates/proteins: 25ug per lane. | Blocking buffer: 3% nonfat dry milk in TBST. | Detection: ECL Basic Kit . | Exposure time: 5s.



Western blot analysis of extracts of various cell lines, using GPX4 antibody (TA376761) at 1:500 dilution. | Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) at 1:10000 dilution. | Lysates/proteins: 25ug per lane. | Blocking buffer: 3% nonfat dry milk in TBST. | Detection: ECL Basic Kit . | Exposure time: 180s.



Immunofluorescence analysis of C6 cells using GPX4 Rabbit pAb (TA376761) at dilution of 1:100 (40x lens). Blue: DAPI for nuclear staining.



Immunofluorescence analysis of L929 cells using GPX4 Rabbit pAb (TA376761) at dilution of 1:100 (40x lens). Blue: DAPI for nuclear staining.