

## [KD Validated] GPX4 polyclonal antibody

Catalog: BS80307

Host: Rabbit

Reactivity: Human, Mouse, Rat

### 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.

### Product:

1mg/ml in PBS with 0.02% sodium azide, 50% glycerol, pH7.2

### Molecular Weight:

20KDa/22KDa

### Swiss-Prot:

P36969

### Purification&Purity:

The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

### Applications:

WB, 1:500 - 1:2000 | IF/ICC, 1:50 - 1:200

### Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

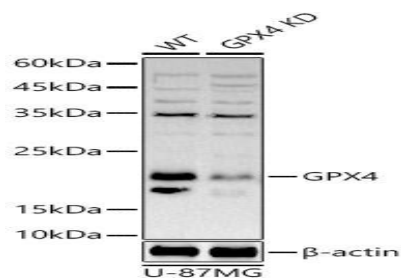
### Modification:

Unmodification

### DATA:

Western blot analysis of extracts of various cell lines, using GPX4 antibody at 1:1000 dilution. Secondary antibody: HRP Goat Anti-Rabbit IgG at 1:10000 dilution. Lysates/proteins: 25ug per lane. Blocking buffer: 3% nonfat dry milk in TBST. Detection: ECL Basic Kit. Exposure time: 1s.

Western blot analysis of extracts of Jurkat cells, using GPX4 antibody at 1:1000 dilution. Secondary antibody: HRP Goat Anti-Rabbit IgG at 1:10000 dilution. Lysates/proteins: 25ug per lane. Blocking buffer: 3% nonfat dry milk in TBST. Detection: ECL Basic Kit. Exposure time: 30s.



Western blot analysis of extracts from wild type and GPX4 knock-down U-87MG cells, using GPX4 antibody at 1:1000 dilution. Secondary antibody: HRP Goat Anti-Rabbit IgG at 1:10000 dilution. Lysates/proteins: 25ug per lane. Blocking buffer: 3% nonfat dry milk in TBST. Detection: ECL Basic Kit. Exposure time: 30s.

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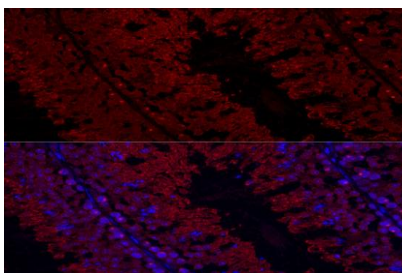
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## PRODUCT DATA SHEET

Bioworld Technology, Inc.



### Note:

For research use only, not for use in diagnostic procedure.

Immunofluorescence analysis of mouse testis cells using GPX4 Rabbit pAb at dilution of 1:250 . Blue: DAPI for nuclear staining.

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