

# [KD Validated] GPX4 Rabbit pAb

Catalog No.: A21440

14 Publications

## Basic Information

### Observed MW

20 kDa

### Calculated MW

22 kDa

### Category

Primary antibody

### Applications

WB, IF-P, ELISA

### Cross-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. Transcript variants resulting from alternative splicing or use of alternate promoters have been described to encode isoforms with different subcellular localization.

## Recommended Dilutions

**WB** 1:500 - 1:1000**IF-P** 1:50 - 1:200

**ELISA** Recommended starting concentration is 1 µg/mL. Please optimize the concentration based on your specific assay requirements.

## Immunogen Information

### Gene ID

2879

### Swiss Prot

P36969

### Immunogen

Recombinant protein (or fragment). This information is considered to be commercially sensitive.

### Synonyms

MCSP; SMDS; GPx-4; PHGPx; snGPx; GSHPx-4; snPHGPx; GPX4

## Contact

 400-999-6126 [cn.market@abclonal.com.cn](mailto:cn.market@abclonal.com.cn) [www.abclonal.com.cn](http://www.abclonal.com.cn)

## Product Information

### Source

Rabbit

### Isotype

IgG

### Purification

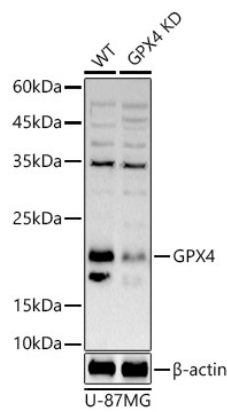
Affinity purification

### Storage

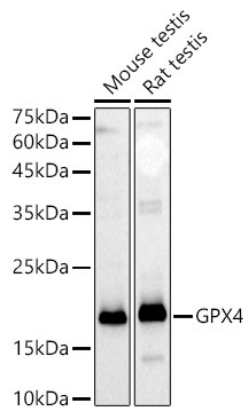
Store at -20°C. Avoid freeze / thaw cycles.

Buffer: PBS containing 50% glycerol, preserved with proclin300 or sodium azide (as specified on the Certificate of Analysis), pH 7.3.

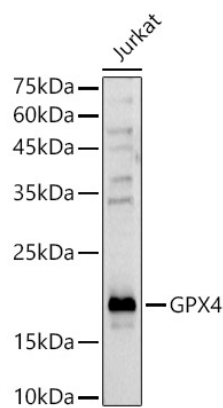
Validation Data



Western blot analysis of lysates from wild type (WT) and GPX4 knockdown (KD) U-87MG cells, using [KD Validated] GPX4 Rabbit pAb (A21440) at 1:1000 dilution.  
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.  
Lysates/proteins: 25µg per lane.  
Blocking buffer: 3% nonfat dry milk in TBST.  
Detection: ECL Basic Kit (RM00020).  
Exposure time: 30s.



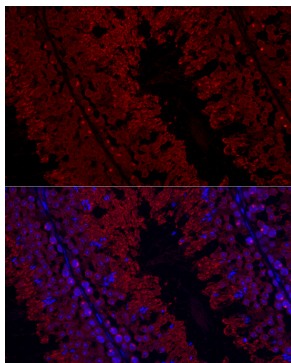
Western blot analysis of various lysates using [KD Validated] GPX4 Rabbit pAb (A21440) at 1:1000 dilution.  
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.  
Lysates/proteins: 25µg per lane.  
Blocking buffer: 3% nonfat dry milk in TBST.  
Detection: ECL Basic Kit (RM00020).  
Exposure time: 1s.



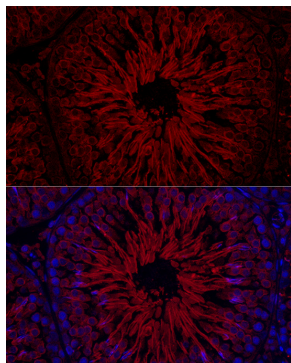
Western blot analysis of lysates from Jurkat cells, using [KD Validated] GPX4 Rabbit pAb (A21440) at 1:1000 dilution.  
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.  
Lysates/proteins: 25µg per lane.  
Blocking buffer: 3% nonfat dry milk in TBST.  
Detection: ECL Basic Kit (RM00020).  
Exposure time: 30s.

## Validation Data

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Immunofluorescence analysis of paraffin-embedded mouse testis using GPX4 Rabbit pAb (A21440) at dilution of 1:200 (40x lens). Secondary antibody: Cy3-conjugated Goat anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.



Immunofluorescence analysis of paraffin-embedded rat testis using GPX4 Rabbit pAb (A21440) at dilution of 1:200 (40x lens). Secondary antibody: Cy3-conjugated Goat anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.