

# [KD Validated] GPX4 Rabbit mAb

Catalog No.: A11243

Recombinant

58 Publications

## Basic Information

**Observed MW**

17kDa

**Calculated MW**

22kDa

**Category**

Primary antibody

**Applications**

ELISA, WB

**Cross-Reactivity**

Human, Mouse, Rat

**CloneNo number**

ARC0558

## 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

## Immunogen Information

**Gene ID**

2879

**Swiss Prot**

P36969

**Immunogen**

A synthetic peptide corresponding to a sequence within amino acids 1-100 of human GPX4 (P36969).

**Synonyms**

MCSP; SMDS; GPx-4; PHGPx; snGPx; GSHPx-4; snPHGPx; [KD Validated] GPX4

## Contact

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## Product Information

**Source**

Rabbit

**Isotype**

IgG

**Purification**

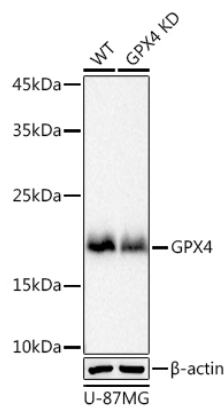
Affinity purification

**Storage**

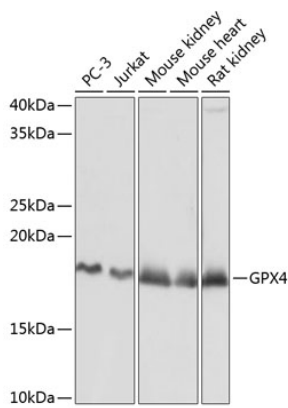
Store at -20°C. Avoid freeze / thaw cycles.

Buffer: PBS with 0.02% sodium azide, 0.05% BSA, 50% glycerol, pH7.3.

Validation Data



Western blot analysis of lysates from wild type (WT) and GPX4 knockdown (KD) U-87 MG cell, using [KD Validated] GPX4 Rabbit mAb (A11243) at 1:1000 dilution.  
Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.  
Lysates/proteins: 25 $\mu$ g per lane.  
Blocking buffer: 3% nonfat dry milk in TBST.  
Detection: ECL Basic Kit (RM00020).  
Exposure time: 1s.



Western blot analysis of various lysates using GPX4 Rabbit mAb (A11243) at 1:1000 dilution.  
Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.  
Lysates/proteins: 25 $\mu$ g per lane.  
Blocking buffer: 3% nonfat dry milk in TBST.  
Detection: ECL Basic Kit (RM00020).  
Exposure time: 10s.