

# Anti-Glutathione Peroxidase 4 Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

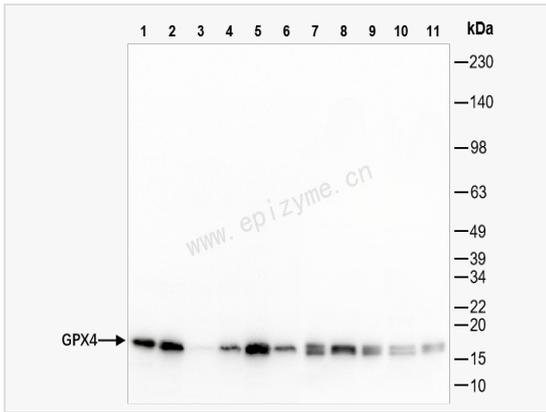
Catalog # R015909

## Product Information

Application	WB, IHC-P/IF (Tissue-P), ELISA
Reactivity	Human, Mouse, Rat
Dilution	WB 1:1,000~1:2,000; IHC-P 1:100~1:200; IF 1:100~1:200
Host	Rabbit
Clonality	Monoclonal
Clone No.	75P49J64
Isotype	IgG
Label	Unconjugated
Immunogen	A synthesized peptide derived from human GPX4
Format	Affinity purified monoclonal antibody supplied in PBS with 0.02% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 24 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	Anti-Glutathione Peroxidase 4 Rabbit mAb [75P49J64] is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

Synonyms	Phospholipid hydroperoxide glutathione peroxidase GPX4; PHGPx; Glutathione peroxidase 4; GPx-4; GSHPx-4; GPX4.
Calculated MW	Calculated MW: 22 kDa; Observed MW: 17 kDa
Uniprot ID	P36969
Gene ID	2879
Background	<p>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. [provided by RefSeq, Dec 2018]</p>
Cellular Location	Isoform Mitochondrial.Mitochondrion.Isoform Cytoplasmic.Cytoplasm.



Western Blot - Anti-Glutathione Peroxidase 4 Rabbit mAb [75P49J64]

All lanes: R015909 at 1:1,000 dilution

Lane 1: HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates

Lane 2: HepG2 (Human hepatocarcinoma epithelial cell) whole cell lysates

Lane 3: HCT116 (Human colorectal carcinoma epithelial cell) whole cell lysates

Lane 4: A431 (Human epidermoid teratoma cell line) whole cell lysates

Lane 5: K562 (Human chronic myeloid leukemia cell) whole cell lysates

Lane 6: U87 (Human malignant glioblastoma epithelial cells) whole cell lysates

Lane 7: Mouse heart whole tissue lysates

Lane 8: Mouse liver whole tissue lysates

Lane 9: Mouse brain whole tissue lysates

Lane 10: Rat heart whole tissue lysates

Lane 11: Rat brain whole tissue lysates

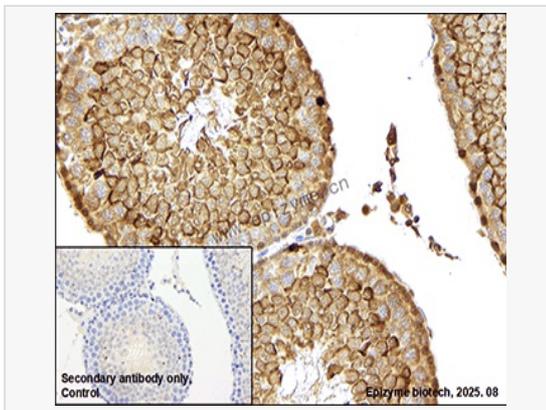
Lysates/proteins at 10 µg per lane.

Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP Conjugated (Cat. No. LF102) at 1:5,000 dilution

Predicted band size: 22 kDa

Observed band size: 17 kDa

Developed using the ECL technique (Cat. No. SQ201).



Immunohistochemistry - Anti-Glutathione Peroxidase 4 Rabbit mAb [75P49J64]

Sample: Paraformaldehyde-fixed, paraffin embedded rat testis tissue

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.

Primary antibody: R015909 at 1:200 dilution

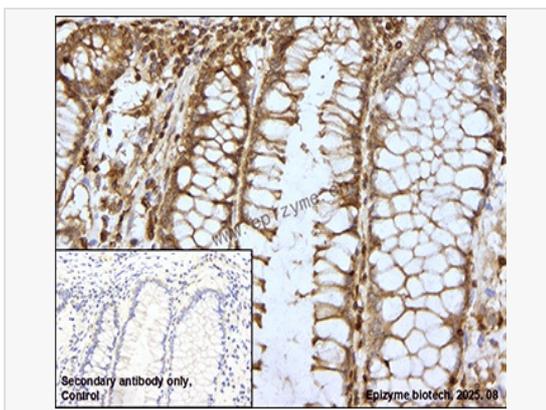
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution

DAB was used as the chromogen.

Counter stained with hematoxylin.

Positive/negative staining were presented.

Only the secondary antibody was used as the negative control.



Immunohistochemistry - Anti-Glutathione Peroxidase 4 Rabbit mAb [75P49J64]

Sample: Paraformaldehyde-fixed, paraffin embedded human colonic cancer tissue

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.

Primary antibody: R015909 at 1:200 dilution

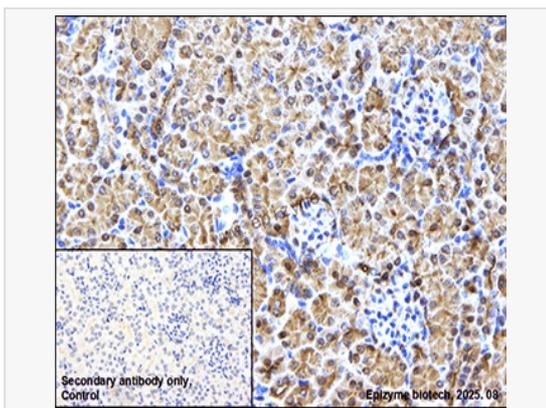
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution

DAB was used as the chromogen.

Counter stained with hematoxylin.

Positive/negative staining were presented.

Only the secondary antibody was used as the negative control.



Immunohistochemistry - Anti-Glutathione Peroxidase 4 Rabbit mAb [75P49J64]

Sample: Paraformaldehyde-fixed, paraffin embedded mouse kidney tissue

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.

Primary antibody: R015909 at 1:200 dilution

Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution

DAB was used as the chromogen.

Counter stained with hematoxylin.

Positive/negative staining were presented.

Only the secondary antibody was used as the negative control.

