

**Glutathione Peroxidase 4 Rabbit mAb**  
**Catalog # AP75497****Specification****Glutathione Peroxidase 4 Rabbit mAb - Product Information**

Application	WB, IHC-P, IHC-F, ICC
Primary Accession	<a href="#">P36969</a>
Reactivity	Human, Rat
Host	Rabbit
Clonality	Monoclonal Antibody
Calculated MW	22175

**Glutathione Peroxidase 4 Rabbit mAb - Additional Information****Gene ID 2879****Other Names**  
GPX4**Dilution**

WB~~1/500-1/1000  
IHC-P~~N/A  
IHC-F~~N/A  
ICC~~N/A

**Format**

50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.

**Storage**

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

**Glutathione Peroxidase 4 Rabbit mAb - Protein Information**

**Name** GPX4 {ECO:0000303|PubMed:9705830, ECO:0000312|HGNC:HGNC:4556}

**Function**

Essential antioxidant peroxidase that directly reduces phospholipid hydroperoxide even if they are incorporated in membranes and lipoproteins (PubMed:<a href="http://www.uniprot.org/citations/40281343" target="\_blank">40281343</a>). Can also reduce cholesterol hydroperoxide and thymine hydroperoxide (By similarity). Plays a key role in protecting cells from oxidative damage by preventing membrane lipid peroxidation (PubMed:<a href="http://www.uniprot.org/citations/40281343" target="\_blank">40281343</a>). Required to prevent cells from ferroptosis, a non-apoptotic cell death resulting from an iron- dependent accumulation of lipid reactive oxygen species (PubMed:<a href="http://www.uniprot.org/citations/24439385" target="\_blank">24439385</a>, PubMed:<a href="http://www.uniprot.org/citations/40281343" target="\_blank">40281343</a>). The presence of selenocysteine (Sec) versus Cys at the active site is essential for life: it provides resistance to overoxidation and prevents cells against ferroptosis (By similarity). The presence of

Sec at the active site is also essential for the survival of a specific type of parvalbumin-positive interneurons, thereby preventing against fatal epileptic seizures (By similarity). May be required to protect cells from the toxicity of ingested lipid hydroperoxides (By similarity). Required for normal sperm development and male fertility (By similarity). Essential for maturation and survival of photoreceptor cells (By similarity). Plays a role in a primary T-cell response to viral and parasitic infection by protecting T-cells from ferroptosis and by supporting T-cell expansion (By similarity). Plays a role of glutathione peroxidase in platelets in the arachidonic acid metabolism (PubMed:<a href="http://www.uniprot.org/citations/11115402" target="\_blank">11115402</a>). Reduces hydroperoxy ester lipids formed by a 15-lipoxygenase that may play a role as down- regulator of the cellular 15-lipoxygenase pathway (By similarity). Can reduce fatty acid-derived hydroperoxides (PubMed:<a href="http://www.uniprot.org/citations/11115402" target="\_blank">11115402</a>, PubMed:<a href="http://www.uniprot.org/citations/36608588" target="\_blank">36608588</a>). Can also reduce small soluble hydroperoxides such as H2O2, cumene hydroperoxide and tert-butyl hydroperoxide (PubMed:<a href="http://www.uniprot.org/citations/17630701" target="\_blank">17630701</a>, PubMed:<a href="http://www.uniprot.org/citations/36608588" target="\_blank">36608588</a>).

#### Cellular Location

[Isoform Mitochondrial]: Mitochondrion {ECO:0000250|UniProtKB:O70325}

#### Tissue Location

Present primarily in testis. Expressed in platelets (at protein level) (PubMed:11115402).

### Glutathione Peroxidase 4 Rabbit mAb - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Glutathione Peroxidase 4 Rabbit mAb - Images



