10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-GPX4 / MCSP Antibody (aa184-196)

Goat Anti Human Polyclonal Antibody
Catalog # ALS17610

Product Information

Application	WB, IHC-P, E
Primary Accession	P36969
Predicted	Human, Monkey
Host	Goat
Clonality	Polyclonal
Calculated MW	22175
Concentration (mg/ml)	0.5 mg/ml

Additional Information

Gene ID	2879
Alias Symbol	GPX4
Other Names	GPX4, GPx-4, MCSP, SnPHGPx, Phospholipid hydroperoxidase, SnGPx, Glutathione peroxidase 4, GSHPx-4, PHGPx
Target/Specificity	Human GPX4. This antibody is expected to recognise isoform A (NP_002076.2) and isoform C (NP_001034937.1).
Reconstitution & Storage	Immunoaffinity purified
Precautions	Anti-GPX4 / MCSP Antibody (aa184-196) is for research use only and not for use in diagnostic or therapeutic procedures.

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:40281343). 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:40281343). Required to prevent cells from ferroptosis, a non-apoptotic cell death resulting from an iron- dependent accumulation of lipid reactive oxygen species (PubMed:24439385, PubMed:40281343). 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:11115402). 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:11115402, PubMed:36608588). Can also reduce small soluble hydroperoxides such as H2O2, cumene hydroperoxide and tert-butyl hydroperoxide (PubMed:17630701, PubMed:36608588).
Cellular Location	[Isoform Mitochondrial]: Mitochondrion {ECO:0000250|UniProtKB:O70325}
Tissue Location	Present primarily in testis. Expressed in platelets (at protein level) (PubMed:11115402).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.