

Rabbit GPX4 Polyclonal Antibody | anti-GPX4 antibody

GPX4 Antibody

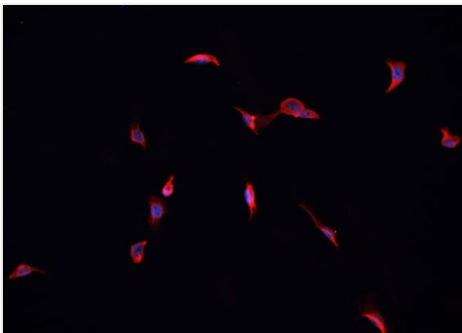
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326465	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

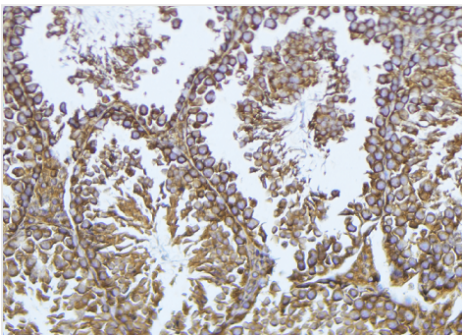
GPX4; Polyclonal Antibody; GPX4 Antibody; Glutathione peroxidase 4; GPX 4; GPX-4; GPX4_HUMAN; GSHPx-4; MCSP; mitochondrial; PHGPx; Phospholipid hydroperoxidase; Phospholipid hydroperoxide glutathione peroxidase; Phospholipid hydroperoxide glutathione peroxidase mitochondrial; snGPx; snPHGPx; Sperm nucleus glutathione peroxidase; anti-GPX4 antibody

PRODUCT SPECIFICATIONS

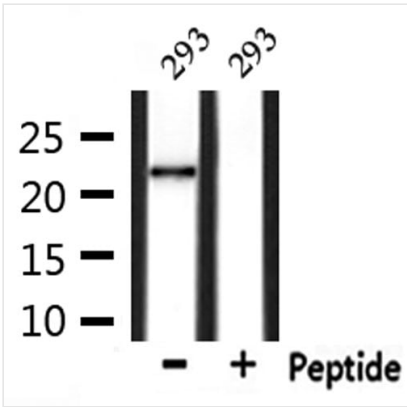
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	GPX4 antibody detects endogenous levels of total GPX4
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	227
Applicable Applications for anti-GPX4 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human GPX4
Subcellular Location	Mitochondrion. Cytoplasm.
Tissue Specificity	Present primarily in testis.
Predicted Cross Reactivity	Pig, Bovine, Chicken
Similarity	Pig (90%), Bovine (100%), Chicken (80%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



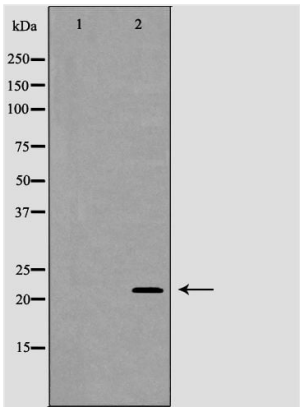
IF (Immunofluorescence)
AAA326465 staining HepG2 cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.



IHC (Immunohistochemistry)
AAA326465 at 1/100 staining Mouse testis tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)
Western blot analysis of extracts from 293, using GPX4 Antibody.



WB (Western Blot)
Western blot analysis of HeLa cell lysate, using GPX4 Antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-GPX4 antibody

Description: Glutathione peroxidase catalyzes the reduction of hydrogen peroxide, organic hydroperoxide, and lipid peroxides by reduced glutathione and functions in the protection of cells against oxidative damage. Human plasma glutathione peroxidase has been shown to be a selenium-containing enzyme and the UGA codon is translated into a selenocysteine. Through alternative splicing and transcription initiation, rat produces proteins that localize to the nucleus, mitochondrion, and cytoplasm. In humans, experimental evidence for alternative splicing exists; alternative transcription initiation and the cleavage sites of the mitochondrial and nuclear transit peptides need to be experimentally verified. [provided by RefSeq, Jul 2008]

Function: Essential antioxidant peroxidase that directly reduces phospholipid hydroperoxide even if they are incorporated in membranes and lipoproteins (By similarity). Can also reduce fatty acid hydroperoxide, cholesterol hydroperoxide and thymine hydroperoxide (By similarity). Plays a key role in protecting cells from oxidative damage by preventing membrane lipid peroxidation (By similarity). Required to prevent cells from ferroptosis, a non-apoptotic cell death resulting from an iron-dependent accumulation of lipid reactive oxygen species (PubMed:24439385). 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).

Subunit Structure: Monomer. Has a tendency to form higher mass oligomers.

Similarity: Belongs to the glutathione peroxidase family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	90903238
NCBI GeneID	2879
NCBI Accession #	NP_001034936.1
NCBI GenBank Nucleotide #	NM_001039847.2
UniProt Accession #	P36969; O43381; Q6PJ59; Q9UPK2
Molecular Weight	Observed: 22 kDa Predicted: 23 kDa
NCBI Official Full Name	phospholipid hydroperoxide glutathione peroxidase isoform B
NCBI Official Synonym Full Names	glutathione peroxidase 4
NCBI Official Symbol	GPX4
NCBI Official Synonym Symbols	MCSP; SMDS; GPx-4; PHGPx; snGPx; GSHPx-4; snPHGPx
NCBI Protein Information	phospholipid hydroperoxide glutathione peroxidase
UniProt Protein Name	Phospholipid hydroperoxide glutathione peroxidase
UniProt Gene Name	GPX4
UniProt Synonym Gene Names	GPx-41 PublicationManual assertion based on opinion iniRef.2; GSHPx-41 PublicationManual assertion based on opinion iniRef.2

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/polyclonal/gpx4-antibody-immunocytochemistry-immunofluorescence-immunohistochemistry-western-blot-elisa/326465>