

Mouse anti-Human Glutathione Peroxidase 4/GPX4 Monoclonal Antibody | anti-GPX4 antibody

Anti-Glutathione Peroxidase 4/GPX4 Antibody Picoband (monoclonal, 6I4E7)

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA126906	Mouse	Human	Western Blot, Flow Cytometry, Functional Assay

PRODUCT SYNONYMS

Glutathione Peroxidase 4/GPX4; Monoclonal Antibody; Anti-Glutathione Peroxidase 4/GPX4 Antibody Picoband (monoclonal; 6I4E7); anti-GPX4 antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human
Clonality	Monoclonal
Isotype	Mouse IgG2b
Clone Number	6I4E7
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na ₂ HPO ₄ .
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml. (varies by lot)
Applicable Applications for anti-GPX4 antibody	WB (Western Blot), FCM/FACS (Flow Cytometry)
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Immunogen	E Coli-derived human Glutathione Peroxidase 4/GPX4 recombinant protein (Position: A30-F197).
Preparation and Storage	Store at -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months. Avoid repeated freezing and thawing.



FCM/FACS (Flow Cytometry)

Figure 2. Flow Cytometry analysis of HeLa cells using anti-Glutathione Peroxidase 4/GPX4 antibody (AAA126906).Overlay histogram showing HeLa cells stained with AAA126906 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-Glutathione Peroxidase 4/GPX4 Antibody (AAA126906, 1 ug/1x10⁶ cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-mouse IgG was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was mouse IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



WB (Western Blot)

Figure 1. Western blot analysis of Glutathione Peroxidase 4/GPX4 using anti-Glutathione Peroxidase 4/GPX4 antibody (AAA126906).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.Lane 1: human HepG2 whole cell lysates,Lane 2: human CACO-2 whole cell lysates,Lane 3: human 293T whole cell lysates,Lane 4: human K562 whole cell lysates.After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-Glutathione Peroxidase 4/GPX4 antigen affinity purified monoclonal antibody (#AAA126906) at 0.5 ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for Glutathione Peroxidase 4/GPX4 at approximately 20 kDa. The expected band size for Glutathione Peroxidase 4/GPX4 is at 22 kDa.

ADDITIONAL INFORMATION

Related Product Information for anti-GPX4 antibody	Glutathione peroxidase 4, also known as GPX4, is an enzyme that in humans is encoded by the GPX4 gene. This gene encodes a member of the glutathione peroxidase protein family. 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. The encoded protein has been identified as a moonlighting protein based on its ability to serve dual functions as a peroxidase as well as a structural protein in mature spermatozoa. Through alternative splicing and transcription initiation, rat produces proteins that localize to the nucleus, mitochondrion, and cytoplasm. In humans, alternative transcription initiation and the cleavage sites of the mitochondrial and nuclear transit peptides need to be experimentally verified. Alternative splicing results in multiple transcript variants.
Product Categories/Family for anti-GPX4 antibody	Primary Antibodies, Mouse Monoclonal Antibodies

NCBI AND UNIPROT INFORMATION

NCBI GI #	172045844
NCBI GeneID	2879
UniProt Accession #	P36969; O43381; Q6PJ59; Q9UPK2
Molecular Weight	Observed MW: 22kDa Calculated MW: 19kDa/22kDa
NCBI Official Full Name	Phospholipid hydroperoxide glutathione peroxidase, mitochondrial
NCBI Official Synonym Full Names	glutathione peroxidase 4
NCBI Official Symbol	GPX4
NCBI Official Synonym Symbols	MCSP; GPx-4; PHGPx; snGPx; GSHPx-4; snPHGPx
NCBI Protein Information	phospholipid hydroperoxide glutathione peroxidase, mitochondrial; phospholipid hydroperoxidase; sperm nucleus glutathione peroxidase
UniProt Protein Name	Phospholipid hydroperoxide glutathione peroxidase, mitochondrial
UniProt Gene Name	GPX4
UniProt Synonym Gene Names	PHGPx; GPx-4; GSHPx-4

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.

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Online datasheet: <https://stage.aaabiotech.com/monoclonal/glutathione-peroxidase-4-gpx4-antibody-clone-6i4e7-western-blot-flow-cytometry-elisa/126906>