Mouse anti-Human Peroxiredoxin 4 Monoclonal Antibody | anti-PRDX4 antibody

Peroxiredoxin 4 (Prognostic Marker for Lung SqCC)

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA214720	**Mouse**	**Human**	**ELISA**

PRODUCT SYNONYMS

Peroxiredoxin 4; Monoclonal Antibody; Peroxiredoxin 4 (Prognostic Marker for Lung SqCC); Antioxidant enzyme 372; Antioxidant enzyme AOE372; AOE37 2; AOE37-2; AOE372; EC 1.11.1.15; Peroxiredoxin IV; Peroxiredoxin-4; Peroxiredoxin4; PRDX 4; Prdx4; Prx IV; Prx-IV; PRX4; PrxIV; Thioredoxin dependent peroxide reductase A0372; Thioredoxin Peroxidase (Antioxidant Enzyme); Thioredoxin peroxidase; Thioredoxin peroxidase AO372; Thioredoxin-dependent peroxide reductase A0372; TRANK; anti-PRDX4 antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human
Clonality	Monoclonal
Isotype	IgG2b
Clone Number	CPTC-PRDX4-2
Specificity	The peroxiredoxin (PRX) family comprises six antioxidant proteins, PRX I, II, III, IV, V and VI, which protect cells from reactive oxygen species (ROS) by preventing the metal-catalyzed oxidation of enzymes. The PRX proteins primarily utilize thioredoxin as the electron donor for antioxidation, although they are fairly promiscuous with regard to the hydroperoxide substrate. In addition to protection from ROS, peroxiredoxins are also involved in cell proliferation, differentiation and gene expression. PRX I, II, IV and VI show diffuse cytoplasmic localization, while PRX III and V exhibit distinct mitochondrial localization. The human PRX IV gene is expressed in many tissues. It exists as a precursor protein, which is only detected in testis, and aprocessed secreted form. PRX IV is highly expressed in lung cancer and is necessary for the promotion of lung cancer in vitro. Studies have demonstrated that PRX IV positive expression is significantly correlated with recurrences and shorter disease-free survival in patients with early-stage lung squamous cell carcinoma, and therefore can be used as a prognostic marker in lung squamous cell carcinoma.
Purity/Purification	Purified Ab with BSA and Azide at 200ug/ml OR Purified Ab WITHOUT BSA and Azide at 1.0mg/ml
Form/Format	200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.
Sequence Length	271
Applicable Applications for anti-PRDX4 antibody	ELISA
Immunogen	Recombinant human full-length PRDX4 protein
Positive Control	HepG2, HeLa and Jurkat cell lysates, ovarian carcinoma tissue. HePG2
Cellular Localization	Cytoplasm. Secreted.
Research Areas	Cardiovascular, Immunology
Preparation and Storage	Antibody with azide - store at 2 to 8°C. Antibody without azide - store at -20 to -80°C. Antibody is stable for 24 months. Non-hazardous. No MSDS required.

IMAGES

SDS-PAGE
SDS-PAGE Analysis of Purified Peroxiredoxin 4 Monoclonal Antibody (CPTC-PRDX4-2). Confirmation of Purity and Integrity of Antibody

Application Data
Analysis of Protein Array containing more than 19,000 full-length human proteins using Peroxiredoxin 4 Monoclonal Antibody (CPTC-PRDX4-2).Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (MAb) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProtTM array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProtTM are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a MAb to its intended target. A MAb is considered to specific to its intended target, if the MAb has an S-score of at least 2.5. For example, if a MAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that MAb to protein X is equal to 29.

ADDITIONAL INFORMATION

References	Butterfield, L.H., et al. 1999. Antioxid. Redox Signal. 1: 385-402.; Hwang, Ji An, et al. International Journal of Clinical and Experimental Pathology, e-Century Publishing Corporation.

NCBI AND UNIPROT INFORMATION

NCBI GI #	5453549
NCBI GeneID	10549
NCBI Accession #	NP_006397.1
NCBI GenBank Nucleotide #	NM_006406.1
UniProt Accession #	Q13162; Q6FHT3
Molecular Weight	27kDa
NCBI Official Full Name	peroxiredoxin-4
NCBI Official Synonym Full Names	peroxiredoxin 4
NCBI Official Symbol	PRDX4
NCBI Official Synonym Symbols	PRX-4; AOE372; AOE37-2; HEL-S-97n
NCBI Protein Information	peroxiredoxin-4
UniProt Protein Name	Peroxiredoxin-4
UniProt Gene Name	**PRDX4**
UniProt Synonym Gene Names	AOE37-2; Prx-IV

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/peroxiredoxin-4-antibody-clone-cptc-prdx4-2-elisa/214720