

Product Data Sheet: GPX4 Rabbit Polyclonal Antibody

Cat. No: AB-84814

Conjugate: Unconjugated

Size: 100 ug

Clone: POLY

Concentration: 1mg/ml

Host: Rabbit

Isotype: IgG

Immunogen: Recombinant fusion protein containing a sequence corresponding to amino acids

74-197 of GPX4.

Reactivity: Human, Mouse, Rat

Western Blot: 1:1500-1:2000 Immunohistochemistry (paraffin-embedded

Applications: tissues): 1:50 - 1:200 Immunofluorescence: 1:50 - 1:200 Immunocytochemistry:

1:50 - 1:200

Molecular Weight: 20kDa

Purification: Affinity purification

Synonyms: MCSP; SMDS; GPx-4; PHGPx; snGPx; GSHPx-4; snPHGPx; GPX4

The protein encoded by this gene belongs to the glutathione peroxidase family, members of which catalyze the reduction of hydrogen peroxide, organic hydroperoxides and lipid hydroperoxides, and thereby protect cells against oxidative damage. Several isozymes of this gene family exist in vertebrates, which vary in cellular location and substrate specificity. This isozyme has a high preference for lipid hydroperoxides and protects cells against membrane lipid peroxidation and cell death. It is also required for normal sperm development; thus, it has been identified as a 'moonlighting' protein because of its ability to serve dual functions as a peroxidase, as well as a structural protein in mature spermatozya. Mutations in this gene are associated with Sedaghatian type of

spermatozoa. Mutations in this gene are associated with Sedaghatian type of spondylometaphyseal dysplasia (SMDS). This isozyme is also a selenoprotein, containing the rare amino acid selenocysteine (Sec) at its active site. Sec is encoded by the UGA codon, which normally signals translation termination. The 3'

UTRs of selenoprotein mRNAs contain a conserved stem-loop structure,

designated the Sec insertion sequence (SECIS) element, that is necessary for the recognition of UGA as a Sec codon, rather than as a stop signal. Transcript variants resulting from alternative splicing or use of alternate promoters have been described to encode isoforms with different subcellular localization.

Form: Liquid

Background:

Buffer: PBS with 0.09% Sodium azide,50% glycerol,pH7.3.

Storage: Store at -20°C. Avoid freeze / thaw cycles.

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