ELK Biotechnology

GPX4 rabbit pAb

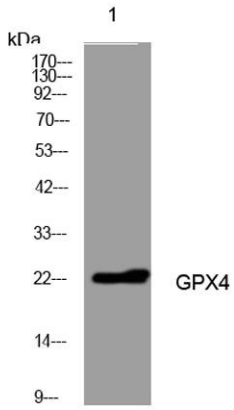
Cat No.:ES15919

For research use only

Overview

Product Name	GPX4 rabbit pAb
Host species	Rabbit
Applications	WB
Species Cross-Reactivity	Human;Rat;Mouse;
Recommended dilutions	WB 1:500-2000
Immunogen	Synthesized peptide derived from human GPX4 AA range: 84-134
Specificity	This antibody detects endogenous levels of GPX4 at Human
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Storage	Store at -20°C. Avoid repeated freeze-thaw cycles.
Protein Name	GPX4
Gene Name	GPX4
Cellular localization	[Isoform Mitochondrial]: Mitochondrion .; [Isoform Cytoplasmic]: Cytoplasm .
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Clonality	Polyclonal
Concentration	1 mg/ml
Observed band	20kD
Human Gene ID	2879
Human Swiss-Prot Number	P36969
Alternative Names	Phospholipid hydroperoxide glutathione peroxidase, mitochondrial (PHGPx) (EC 1.11.1.12) (Glutathione peroxidase 4) (GPx-4) (GSHPx-4)
Background	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 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. Alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Oct 2016],



Western blot analysis of lysates from U2OS cells, primary antibody was diluted at 1:1000, 4°over night