#### **Elabscience Bionovation Inc.**



A Reliable Research Partner in Life Science and Medicine

## **GPX4 Monoclonal Antibody**

catalog number: AN200085P

Note: Centrifuge before opening to ensure complete recovery of vial contents.

#### **Description**

Reactivity Human

Immunogen Recombinant Human GPX4 Protein

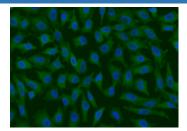
Host Mouse
Isotype IgG1
Clone A933
Purification Protein A

Buffer 0.2 µm filtered solution in PBS

Applications Recommended Dilution

ICC/IF 1:100-1:400

#### Data



Immunofluorescence analysis of GPX4 in HeLa cells. Cells were fixed with 4% PFA, permeabilzed with 0.1% Triton X-100 in PBS,blocked with 10% serum, and incubated with mouse anti-Human GPX4 Monoclonal Antibody (dilution ratio 1:200) at 4°C overnight. Then cells were stained with the Alexa Fluor®488-conjugated Goat Anti-mouse IgG secondary antibody (green) and counterstained with DAPI for nuclear staining (blue).Positive staining was localized to Cytoplasm.

## Preparation & Storage

**Storage** This antibody can be stored at 2°C-8°C for one month without detectable loss of

activity. Antibody products are stable for twelve months from date of receipt when

stored at -20°C to -80°C. Preservative-Free. Avoid repeated freeze-thaw cycles.

Shipping Ice bag

### **Background**

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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.

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