# GPX4 Polyclonal Antibody

**catalog number:** **E-AB-67390**

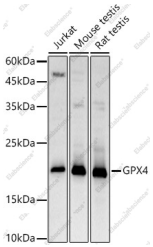
**Note:** *Centrifuge before opening to ensure complete recovery of vial contents.*

## Description

| | |
|---|---|
| **Reactivity** | Human;Mouse;Rat |
| **Immunogen** | Recombinant fusion protein of human GPX4 |
| **Host** | Rabbit |
| **Isotype** | Rabbit IgG |
| **Purification** | Affinity purification |
| **Buffer** | Phosphate buffered solution, pH 7.4, containing 0.05% stabilizer and 50% glycerol. |

| Applications | Recommended Dilution |
|---|---|
| **WB** | 1:500-1:2000 |
| **IF** | 1:50-1:200 |

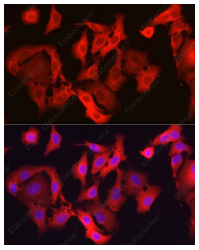
## Data



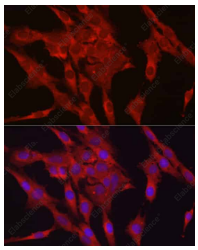

Western blot analysis of extracts of various cell lines using GPX4 Polyclonal Antibody at 1:1000 dilution.

**Observed-MW:22 kDa**

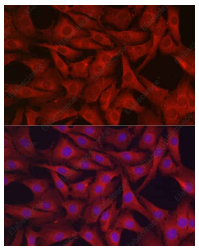
**Calculated-MW:19 kDa/22 kDa**



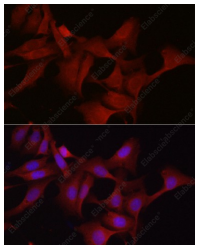
Immunofluorescence analysis of A-549 cells using GPX4 Polyclonal Antibody at dilution of 1:200 (40x lens). Blue: DAPI for nuclear staining.



Immunofluorescence analysis of C6 cells using GPX4 Polyclonal antibody at dilution of 1:200 (40x lens). Blue: DAPI for nuclear staining.



Immunofluorescence analysis of NIH/3T3 cells using GPX4 Polyclonal antibody at dilution of 1:200 (40x lens). Blue: DAPI for nuclear staining.



Immunofluorescence analysis of U2OS cells using GPX4 Polyclonal antibody at dilution of 1:200 (40x lens). Blue: DAPI for nuclear staining.

## Preparation & Storage

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|---|---|
| **Storage** | Store at -20°C Valid for 12 months. Avoid freeze / thaw cycles. |
| **Shipping** | The product is shipped with ice pack,upon receipt,store it immediately at the temperature recommended. |

## 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.


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