Data Sheet (Cat.No.TMAC-01687)

Anti-GPX1 Antibody (3M540)

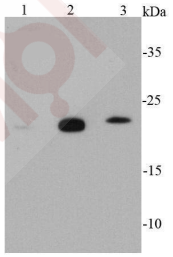
Product Details

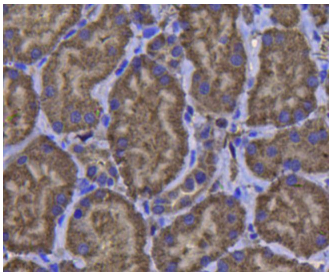
Reactivity:	Human
Conjugation:	Unconjugated
Molecular Weight:	Theoretical: 22 kDa.
Clone:	3M540
Purification:	ProA affinity purified

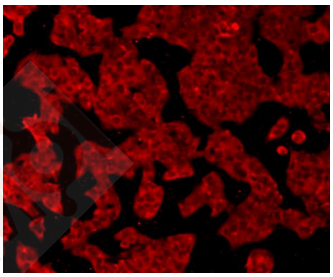
Applications

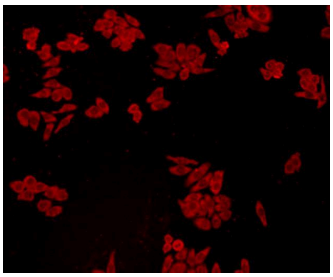
Verified Activity:

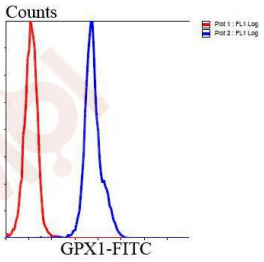
1. Positive control: Western blot analysis of GPX1 on different cell lysates using anti-GPX1 antibody at 1/1000 dilution. Positive control: Lane 1: THP-1, Lane 2: HepG2, Lane 3: 293T.
2. Immunohistochemical analysis of paraffin-embedded human kidney tissue using anti-GPX1 antibody. Counter stained with hematoxylin.
3. ICC staining GPX1 in Hela cells (red). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
4. ICC staining GPX1 in HepG2 cells (red). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
5. Flow cytometric analysis of HepG2 cells with GPX1 antibody at 1/100 dilution (blue) compared with an unlabelled control (cells without incubation with primary antibody; red). Goat anti mouse IgG (FITC) was used as the secondary antibody.











Application: FCM,ICC,IHC,WB

Recommended: WB: 1:1000; IHC: 1:200; ICC: 1:200; FCM: 1:100-200

Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

Antigen Details

Immunogen: Recombinant Protein

Uniprot ID: P07203

Research Background

GPX1 is ubiquitously expressed in many tissues, where it protects cells from oxidative stress. Within cells, it localizes to the cytoplasm and mitochondria. As a glutathione peroxidase, GPx1 functions in the detoxification of hydrogen peroxide, specifically by catalyzing the reduction of hydrogen peroxide to water. The glutathione peroxidase also catalyzes the reduction of other organic hydroperoxides, such as lipid peroxides, to the corresponding alcohols. GPx1 typically uses glutathione (GSH) as the reductant, but when glutathione synthetase (GSS) is, as in brain mitochondria, γ-glutamylcysteine can serve as the reductant instead. The protein encoded by this gene protects from CD95-induced apoptosis in cultured breast cancer cells and inhibits 5-lipoxygenase in blood cells, and its overexpression delays endothelial cell death and increases resistance to toxic challenges, especially oxidative stress. This protein is one of only a few proteins known in higher vertebrates to contain selenocysteine, which occurs at the active site of glutathione peroxidase and is coded by the nonsense (stop) codon TGA.

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