[KD Validated] Anti-GPX4 Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

Catalog # R021472

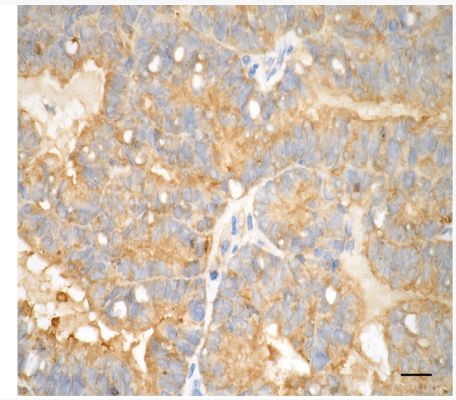
Product Information

Application	WB, FC, IF (Cell)/ICC, IHC-P/IF (Tissue-P)
Reactivity	Human, Mouse, Rat
Dilution	WB 1:1,000~1:5,000; FC 1:200~1:2,000; IF 1:100~1:1,000; IHC-P 1:100~1:200
Host	Rabbit
Clonality	Monoclonal
Clone No.	52Q47S85
Isotype	IgG
Label	Unconjugated
Immunogen	A synthesized peptide derived from human GPX4
Format	Affinity purified monoclonal antibody supplied in PBS with 0.02% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 12 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	[KD Validated] Anti-GPX4 Rabbit mAb [52Q47S85] is for research use only and not for use in diagnostic or therapeutic procedures.

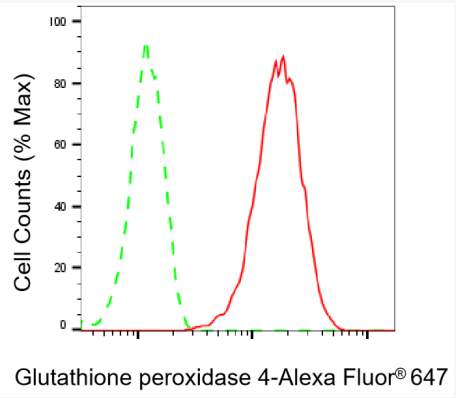
Protein Information

Synonyms	GPX4; Glutathione Peroxidase 4; PHGPx; MCSP; Phospholipid Hydroperoxide Glutathione Peroxidase GPX4; Phospholipid Hydroperoxidase; Selenoprotein GPX4; EC 1.11.1.12; GSHPx-4; GPx-4; Phospholipid Hydroperoxide Glutathione Peroxidase, Mitochondrial; Glutathione Peroxidase 4 (Phospholipid Hydroperoxidase); Epididymis Secretory Sperm Binding Protein; Sperm Nucleus Glutathione Peroxidase; EC 1.11.1.9; EC 1.11.1; SnPHGPx; SnGPx; SMDS.
Calculated MW	Calculated MW: 22 kDa; Observed MW: 17 kDa
Uniprot ID	P36969
Gene ID	2879
Background	Protects cells against membrane lipid peroxidation and cell death. Required for normal sperm development and male fertility. Could play a major role in protecting mammals from the toxicity of ingested lipid hydroperoxides. Essential for embryonic development. Protects from radiation and oxidative damage.

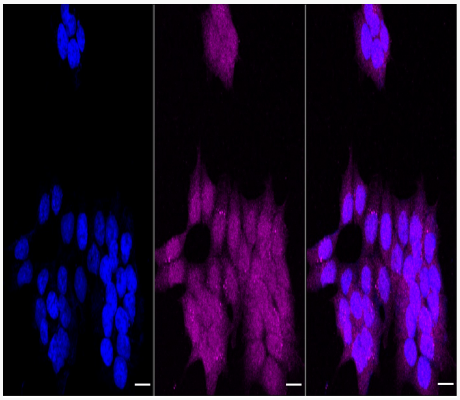
Validation Images



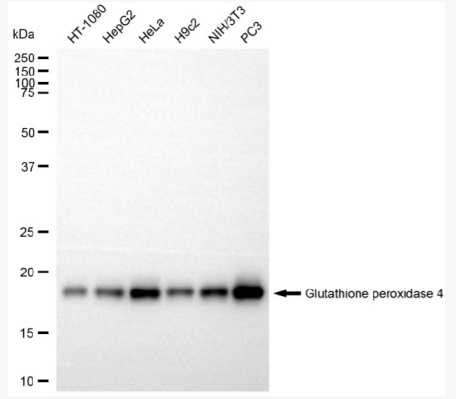
Immunohistochemistry was performed on paraffin-embedded human endometrial carcinoma using glutathione peroxidase 4 antibody (R021472, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



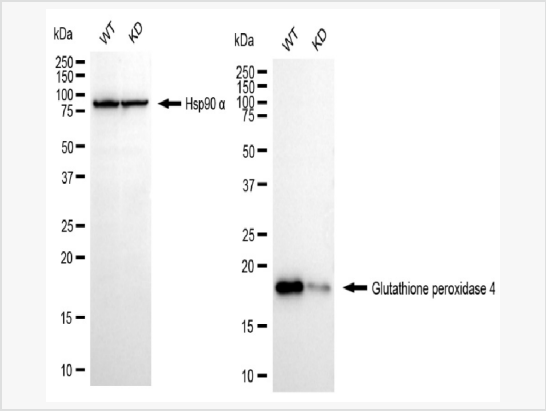
Flow cytometric analysis of Glutathione peroxidase 4 expression in HAP-1 cells using Glutathione peroxidase 4 antibody (R021472, 1:2,000). Green, isotype control; red, Glutathione peroxidase 4.



Immunocytochemical staining of HAP-1 cells with Glutathione peroxidase 4 antibody (R021472, 1:1,000). Nuclei were stained blue with DAPI; Glutathione peroxidase 4 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 µm.



Western blotting analysis using glutathione peroxidase 4 antibody (R021472). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with glutathione peroxidase 4 antibody (R021472, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.



Western blotting analysis using glutathione peroxidase 4 antibody (R021472). Glutathione peroxidase 4 expression in wild type (WT) and glutathione peroxidase 4 (GPX4) knockdown (KD) HSHC cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with glutathione peroxidase 4 antibody (R021472, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.