GPx-4 polyclonal antibody

Catalog: BS66178 Host: Rabbit Reactivity: Human,Mouse,Rat

BackGround:

The selenoprotein glutathione peroxidase 4 (GPX4) is a master regulator of ferroptosis, a form of programmed cell death induced by iron-dependent lipid peroxidation. GPX4 converts lipid hydroperoxides to non-toxic lipid alcohols, therefore preventing ferroptosis. Research studies show that selenium enhances GPX4 expression and inhibits ferroptotic death to protect neurons. In addition, some therapy-resistant cancer cells depend on GPX4 to survive. Loss of GPX4 leads to ferroptosis and thus prevents tumor relapse in mice. Furthermore, redox homeostasis mediated by GPX4 is essential for activation of the cytosolic DNA-sensing cGAS-STING pathway and initiation of the subsequent innate immune response.

Product:

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.

Molecular Weight:

~ 22 kDa

Swiss-Prot:

P36969

Purification&Purity:

The antibody was purified by immunogen affinity chromatography.

Applications:

WB:1:500-1:2000

IHC:1:50-1:200

IF/ICC:1:10-1:100

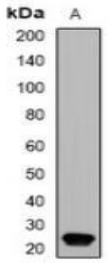
Storage&Stability:

Shipped at 4℃. Upon delivery aliquot and store at -20℃ for one year. Avoid freeze/thaw cycles.

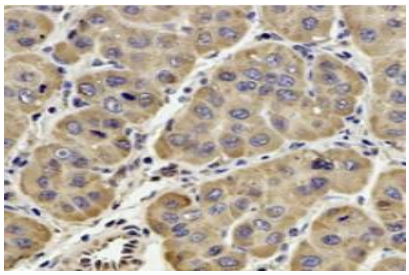
Specificity:

Recognizes endogenous levels of GPx-4 protein.

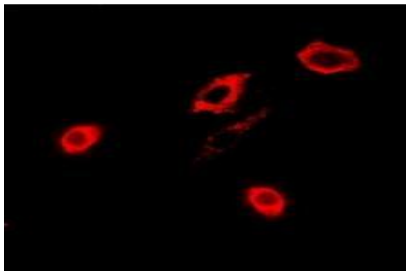
DATA:



Western blot analysis of GPx-4 expression in mouse kidney (A) whole cell lysates. (Predicted band size: 19; 22 kD; Observed band size: 22 kD)



Immunohistochemical analysis of GPx-4 staining in human liver cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of GPx-4 staining in A549 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 ℃ in a hidified chamber. Cells

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were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark.

Note:

For research use only, not for use in diagnostic procedure.

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