

## Basic Information

<b>Product Name</b>	Anti-GPX1 Antibody (Clone#8B10)	
<b>Gene Name</b>	GPX1	
<b>Source</b>	Mouse	
<b>Clonality</b>	Monoclonal	
<b>Isotype</b>	IgG2b	
<b>Species Reactivity</b>	human, mouse, rat	
<b>Tested Application</b>	WB, IHC, IF, FCM	
<b>Contents</b>	500 ug/ml antibody with PBS, 0.02% NaN3, 1 mg/ml BSA and 50% glycerol.	
<b>Immunogen</b>	A synthetic peptide corresponding to a sequence in the middle region of human GPX1, different from the related mouse sequence by six amino acids and from the related rat sequence by five amino acids.	
<b>Concentration</b>	500 ug/ml	
<b>Purification</b>	protein G purified.	
<b>Observed MW</b>	22 kDa	
<b>Dilution Ratios</b>	Western blot (WB):	1:500-2000
	Immunohistochemistry (IHC):	1:50-400
	Immunofluorescence (IF):	1:50-400
	Flow Cytometry (Fixed):	1:50-200
	(Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

## Storage

12 months from date of receipt, -20°C as supplied.

## Background Information

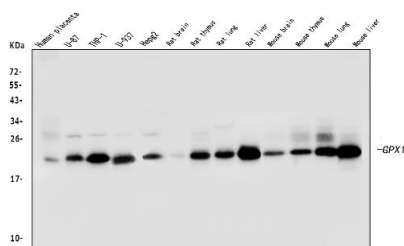
Glutathione peroxidase 1, also known as, GPX-1 is an enzyme that in humans is encoded by the GPX1 gene. It is mapped to 3p21.31. This gene encodes a member of the glutathione peroxidase family, consisting of eight known glutathione peroxidases (Gpx1-8) in humans. Glutathione peroxidase functions in the detoxification of hydrogen peroxide, and is one of the most important antioxidant enzymes in humans. It has been reported that 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 growth and increases resistance to toxic challenges. GPX1 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.

## Reference

Anti-GPX1 Antibody (Clone#8B10)被引用在1文献中。

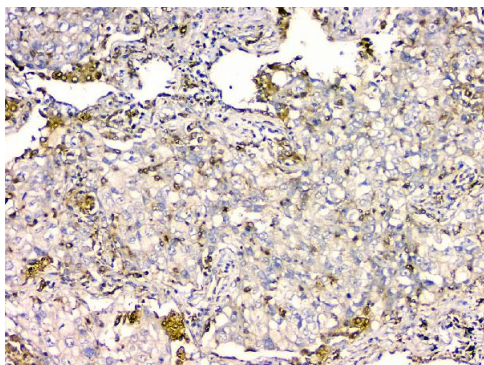
## Selected Validation Data



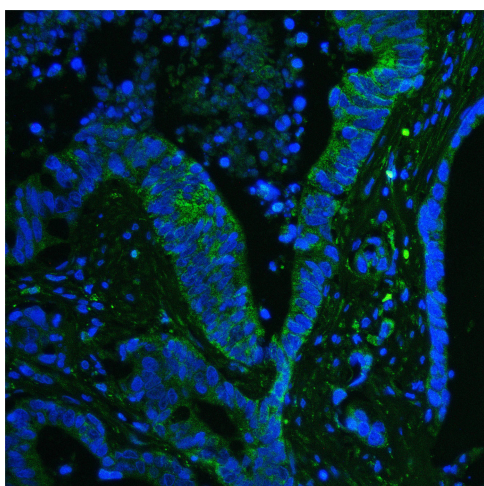
Western blot analysis of GPX1 using anti-GPX1 antibody (M01019-2). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human placenta tissue lysates,  
 Lane 2: human U-87 whole cell lysates,  
 Lane 3: human THP-1 whole cell lysates,  
 Lane 4: human U-937 whole cell lysates,  
 Lane 5: human HepG2 whole cell lysates,  
 Lane 6: rat brain tissue lysates,  
 Lane 7: rat thymus tissue lysates,  
 Lane 8: rat lung tissue lysates,  
 Lane 9: rat liver tissue lysates,  
 Lane 10: mouse brain tissue lysates,  
 Lane 11: mouse thymus tissue lysates,  
 Lane 12: mouse lung tissue lysates,  
 Lane 13: mouse liver tissue lysates.

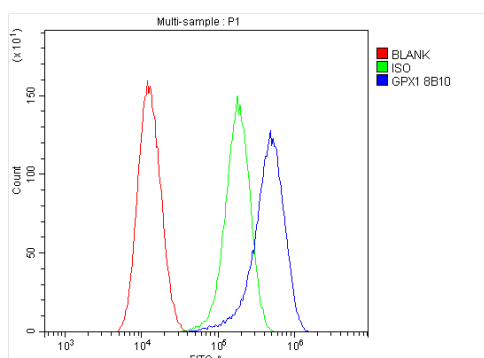
After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with mouse anti-GPX1 antigen affinity purified monoclonal antibody (M01019-2) at a dilution of 1:1000 and probed with a goat anti-mouse IgG-HRP secondary antibody (Catalog # BA1050). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for GPX1 at approximately 22 kDa. The expected band size for GPX1 is at 22 kDa.



IHC analysis of GPX1 using anti-GPX1 antibody (M01019-2). GPX1 was detected in a paraffin-embedded section of human lung cancer tissue. Biotinylated goat anti-mouse IgG was used as secondary antibody. The tissue section was incubated with mouse anti-GPX1 Antibody (M01019-2) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB (Catalog # AR1027) as the chromogen.



IF analysis using anti- GPX1 antibody (M01019-2). detected in paraffin-embedded section of human colon cancer tissue. The tissue section were stained using the Fluoro488 conjugated Anti-mouse IgG Secondary Antibody (green)(Catalog # BA1126) and counterstained with DAPI (blue).



Flow Cytometry analysis of U87 cells using anti-GPX1 antibody (M01019-2).

Overlay histogram showing U87 cells stained with M01019-2 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-GPX1 Antibody (M01019-2) at 1:100 dilution for 30 min at 20°C. Fluoro488 conjugated goat anti-mouse IgG (BA1126) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.