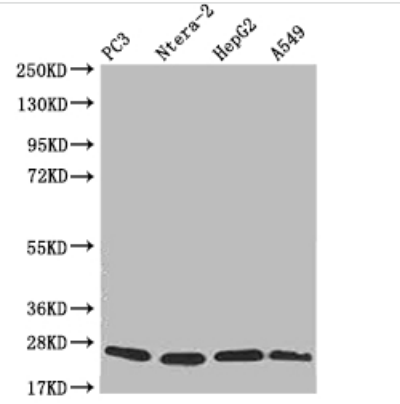
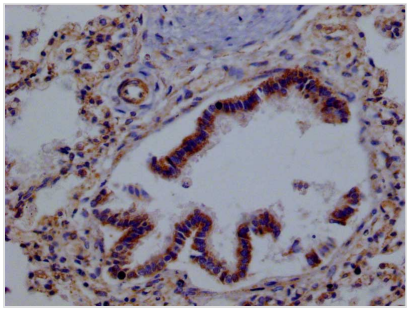
PRDX3 Recombinant Monoclonal Antibody

Product Code	CSB-RA437344A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P30048
Immunogen	A synthesized peptide derived from human PRDX3
Species Reactivity	Human
Tested Applications	ELISA, WB, IHC, IF, FC; Recommended dilution: WB:1:500-1:2000, IHC:1:50-1:200, IF:1:50-1:200, FC:1:50-1:200
Relevance	Thiol-specific peroxidase that catalyzes the reduction of hydrogen peroxide and organic hydroperoxides to water and alcohols, respectively. Plays a role in cell protection against oxidative stress by detoxifying peroxides (PubMed:7733872, PubMed:17707404). Acts synergistically with MAP3K13 to regulate the activation of NF-kappa-B in the cytosol (PubMed:12492477).
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Cancer; Cell biology; Metabolism; Signal transduction
Gene Names	PRDX3
Clone No.	14E2

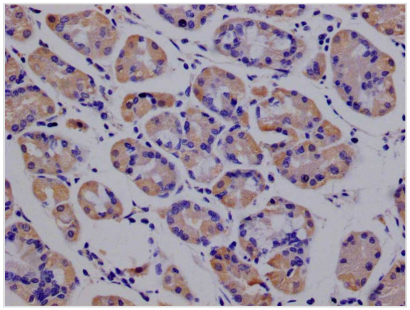
Image



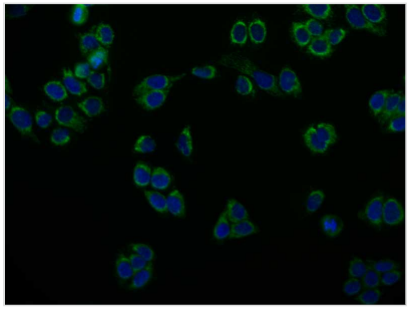
Western Blot
Positive WB detected in: PC3 whole cell lysate, Ntera-2 whole cell lysate, HepG2 whole cell lysate, A549 whole cell lysate
All lanes: PRDX3 antibody at 1:2000
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 28, 26 kDa
Observed band size: 20-28 kDa



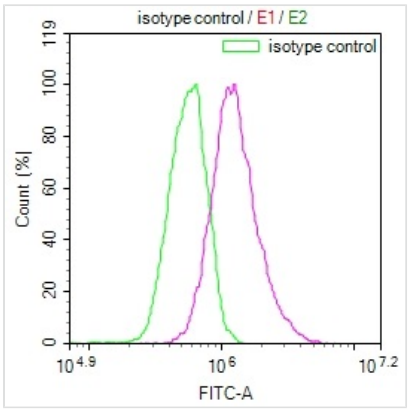
IHC image of CSB-RA437344A0HU diluted at 1:100 and staining in paraffin-embedded human lung tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit polymer IgG labeled by HRP and visualized using 0.05% DAB.



IHC image of CSB-RA437344A0HU diluted at 1:100 and staining in paraffin-embedded human stomach tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit polymer IgG labeled by HRP and visualized using 0.05% DAB.



Immunofluorescence staining of PC-3 cell with CSB-RA437344A0HU at 1:50, counter-stained with DAPI. The cells were fixed in 4% formaldehyde and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4°C. The secondary antibody was Alexa Fluor 503-congugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Overlay Peak curve showing HepG2 cells stained with CSB-RA437344A0HU (red line) at 1:100. The cells were fixed in 4% formaldehyde and permeated by 0.2% TritonX-100. Then 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (1ug/1*10^6cells) for 45min at 4?. The secondary antibody used was FITC-conjugated Goat Anti-rabbit IgG(H+L) at 1:200 dilution for 35min at 4?.Control antibody (green line) was rabbit IgG (1ug/1*10^6cells) used under the same conditions. Acquisition of >10,000 events was performed.

Description

The development of the PRDX3 recombinant monoclonal antibody involves a carefully executed process to ensure its quality and specificity. B cells are isolated from an immunized animal, using the synthesized peptide derived from human PRDX3 as the immunogen. Total RNA is extracted from these B cells and converted into cDNA through reverse transcription. The PRDX3 antibody genes are then amplified using specific primers targeting the antibody constant regions and inserted into an expression vector. This vector is transfected into

host cells, facilitating the production of the PRDX3 recombinant monoclonal antibody. After cell culture, the antibody is harvested from the supernatant and purified using affinity chromatography, resulting in a highly purified form. Comprehensive characterization assays, including ELISA, WB, IHC, IF, and FC analysis, are conducted to validate the antibody's specificity and functionality, ensuring its accurate binding to human PRDX3 protein.