For Research Use Only

PRDX1 Monoclonal antibody

Catalog Number:66820-1-Ig Featured Product 3 Publications

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Basic Information

Catalog Number:
66820-1-Ig

Size:
1000 μg/ml

Source:
Mouse

Isotype:
IgG1

Immunogen Catalog Number:
AG8821

GenBank Accession Number:
BC007063

GeneID (NCBI):
5052

UNIPROT ID:
Q06830

Full Name:
peroxiredoxin 1

Calculated MW:
199 aa, 22 kDa

Observed MW:
23 kDa

Purification Method:
Protein A purification

CloneNo.:
2B2A2

Recommended Dilutions:
WB 1:5000-1:50000
IHC 1:1000-1:4000
IF 1:200-1:800

Applications

Tested Applications:
IF-P, IHC, WB, ELISA

Cited Applications:
CoIP, IP, WB

Species Specificity:
Human, mouse , rat

Cited Species:
human, mouse, rat

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : HeLa cells, U2OS cells, HEK-293 cells, Caco-2 cells, MCF-7 cells, Jurkat cells, HSC-T6 cells, NIH/3T3 cells, 4T1 cells, LNCaP cells

IHC : human liver cancer tissue,

IF : human liver cancer tissue,

Background Information

PRDX1(Peroxiredoxin-1), also named as PAGA, PAGB, TDPX2, PAG or NKEF-A, belongs to the ahpC/TSA family. PRDX1 is a thiol reductase that plays critical roles in oxidative and thermal stress defense mechanisms through its abilities to metabolize H2O2 and act as a molecular chaperone, respectively. PRDX1 might participate in the signaling cascades of growth factors and tumor necrosis factor-alpha by regulating the intracellular concentrations of H2O2 ((PMID: 9497357)). It reduces an intramolecular disulfide bond in GDPD5 that gates the ability to GDPD5 to drive postmitotic motor neuron differentiation. PRDX1 can form a dimer, and also can be phosphorylated on Thr-90 during the M-phase, which leads to a more than 80% decrease in enzymatic activity (PMID: 22583657, 11986303).

Notable Publications

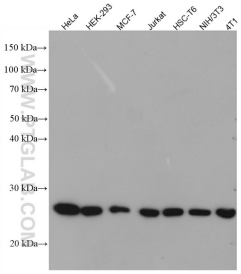
Author	Pubmed ID	Journal	Application
Ling Zhu	36290756	Antioxidants (Basel)	WB
Lin Lv	34260286	J Virol	WB, CoIP
Zi-Jie Zhang	37101626	Heliyon	IP

Storage

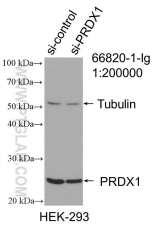
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

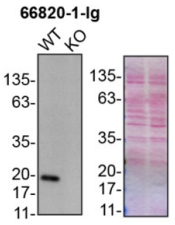
Selected Validation Data



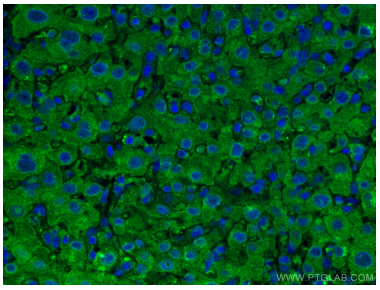
Various lysates were subjected to SDS PAGE followed by western blot with 66820-1-Ig (PRDX1 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



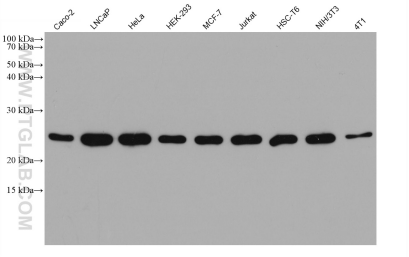
WB result of PRDX1 antibody (66820-1-Ig; 1:200000; incubated at room temperature for 1.5 hours) with sh-Control and sh-PRDX1 transfected HEK-293 cells.



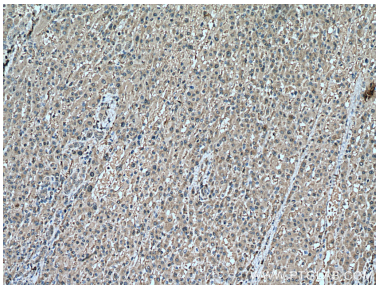
U2OS (WT and PRDX1 KO) lysates prepared with RIPA buffer, 10 μg protein loaded. 66820-1-Ig incubated at 1:5000 at 4°C overnight in 5% BSA in TBST. Ponceau stained transfers shown on right. Data provided by YCharOS, an open science company with a mission to validate commercial antibodies to improve scientific reproducibility and transparency.



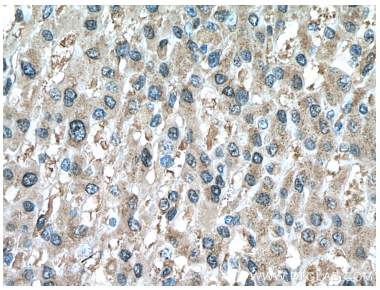
Immunofluorescent analysis of (4% PFA) fixed human liver cancer tissue using PRDX1 antibody (66820-1-Ig, Clone: 2B2A2) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



Various lysates were subjected to SDS PAGE followed by western blot with 66820-1-Ig (PRDX1 antibody) at dilution of 1:50000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 66820-1-Ig (PRDX1 antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 66820-1-Ig (PRDX1 antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).