

For Research Use Only

PRDX1 Polyclonal antibody

Catalog Number: 15816-1-AP

Featured Product

42 Publications



Basic Information

Catalog Number:

15816-1-AP

Size:

150ul, Concentration: 600 ug/ml by Nanodrop;

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG8602

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:

Antigen affinity purification

Recommended Dilutions:

WB 1:5000-1:50000

IHC 1:100-1:400

IF/ICC 1:50-1:500

Applications

Tested Applications:

WB, IHC, IF/ICC, ELISA

Cited Applications:

WB, IHC, IF, ColP

Species Specificity:

human, mouse, rat

Cited Species:

human, mouse, rat, bovine

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: A549 cells, HEK-293 cells, U2OS cells, HeLa cells, HepG2 cells, mouse kidney tissue, rat kidney tissue

IHC: human breast cancer tissue, human colon tissue

IF/ICC: HeLa cells,

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- α 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
Lei Ye	33491741	Int J Oncol	WB
Wenjuan Qin	31506552	Sci Rep	WB
Ling Fu	31411056	Antioxid Redox Signal	WB

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

*** 20ul sizes contain 0.1% BSA

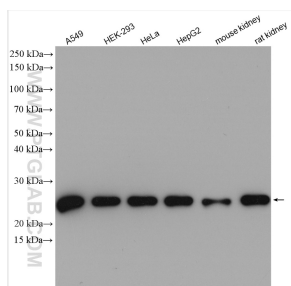
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

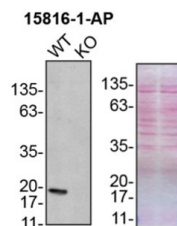
E: proteintech@ptglab.com
W: ptglab.com

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

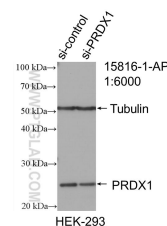
Selected Validation Data



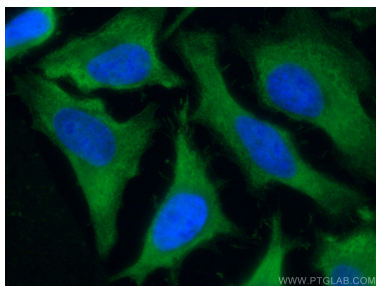
A549 cells were subjected to SDS PAGE followed by western blot with 15816-1-AP (PRDX1 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



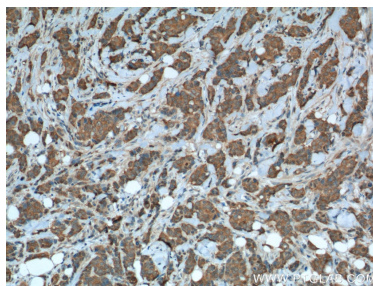
U2OS (WT and PRDX1 KO) lysates prepared with RIPA buffer, 10 µg protein loaded. 15816-1-AP incubated at 1:5000 at 4°C overnight in 5% BSA in TBST. Ponceau stained transfers shown on right. Data provided by YCharOS, an open science company with a mission to validate commercial antibodies to improve scientific reproducibility and transparency.



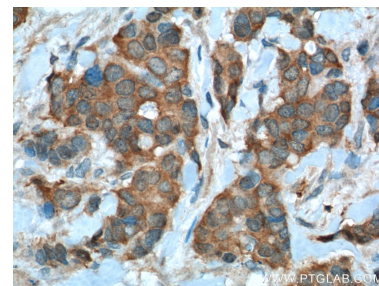
WB result of PRDX1 antibody (15816-1-AP; 1:6000; incubated at room temperature for 1.5 hours) with sh-Control and sh-PRDX1 transfected HEK-293 cells.



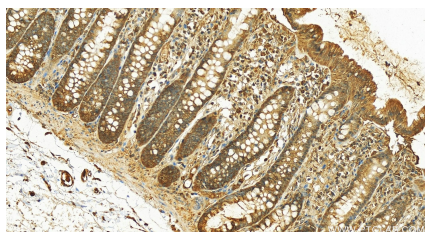
Immunofluorescent analysis of (-20°C Ethanol) fixed HeLa cells using PRDX1 antibody (15816-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 15816-1-AP (PRDX1 Antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 15816-1-AP (PRDX1 Antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human normal colon slide using 15816-1-AP (PRDX1 antibody) at dilution of 1:2000 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).