

For Research Use Only

PRDX1 Polyclonal antibody

Catalog Number: 15816-1-AP

Featured Product

24 Publications



Basic Information

| | | |
|---|--|--|
| Catalog Number: 15816-1-AP | GenBank Accession Number: BC007063 | Purification Method: Antigen affinity purification |
| Size: 150ul, Concentration: 500 µg/ml by Nanodrop and 140 µg/ml by Bradford method using BSA as the standard; | GeneID (NCBI): 5052 | Recommended Dilutions: WB 1:5000-1:50000 IHC 1:100-1:400 IF 1:50-1:500 |
| Source: Rabbit | Full Name: peroxiredoxin 1 | |
| Isotype: IgG | Calculated MW: 199 aa, 22 kDa | |
| Immunogen Catalog Number: AG8602 | Observed MW: 23 kDa | |

Applications

Tested Applications:
FC, IF, IHC, WB, ELISA

Cited Applications:
IF, IHC, 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: A549 cells, HEK-293 cells, HeLa cells, HepG2 cells, mouse kidney tissue, rat kidney tissue

IHC: human breast cancer tissue, human brain tissue

IF: HeLa cells, RAW 264.7 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 |
| Cheng Liu | 25397718 | J Agric Food Chem | 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

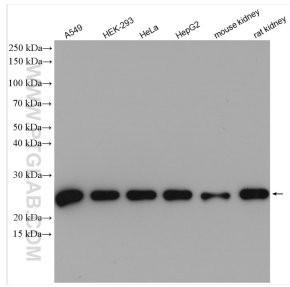
For technical support and original validation data for this product please contact:

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

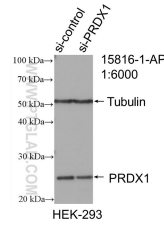
E: proteintech@ptglab.com
W: ptglab.com

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

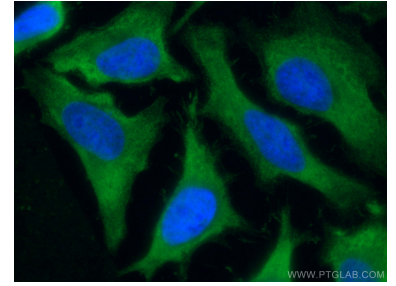
Selected Validation Data



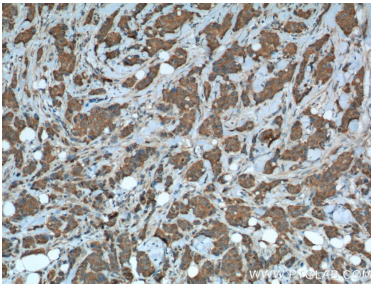
A549 cells were subjected to SDS PAGE followed by western blot with 15816-1-AP (PRDX1 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



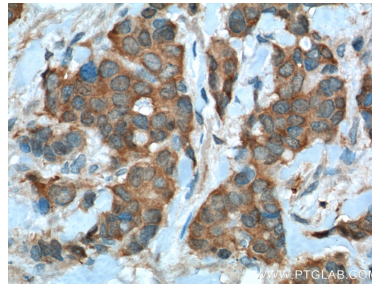
WB result of PRDX1 antibody (15816-1-AP; 1:6000; incubated at room temperature for 1.5 hours) with sh-Control and sh-PRDX1 transfected HEK-293 cells.



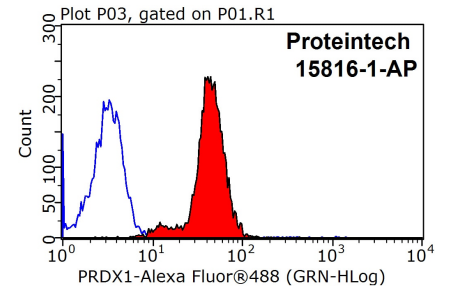
Immunofluorescent analysis of (-20°C Ethanol) fixed HeLa cells using PRDX1 antibody (15816-1-AP) at dilution of 1:200 and CoraLite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



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).



1X10⁶ HepG2 cells were stained with 0.2ug PRDX1 antibody (15816-1-AP, red) and control antibody (blue). Fixed with 90% MeOH blocked with 3% BSA (30 min). Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) with dilution 1:1500.