10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

PRDX4 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12100c

Product Information

Application	WB, IHC-P, E
Primary Accession	Q13162
Other Accession	Q9Z0V5, O08807, Q9BGI2, NP_006397.1
Reactivity	Human, Mouse
Predicted	Bovine, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB20891
Calculated MW	30540
Antigen Region	82-110

Additional Information

Gene ID	10549
Other Names	Peroxiredoxin-4, Antioxidant enzyme AOE372, AOE37-2, Peroxiredoxin IV, Prx-IV, Thioredoxin peroxidase AO372, Thioredoxin-dependent peroxide reductase A0372, PRDX4
Target/Specificity	This PRDX4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 82-110 amino acids from the Central region of human PRDX4.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	PRDX4 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PRDX4
Function	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 and as sensor of hydrogen peroxide-mediated signaling events. Regulates the activation of NF-kappa-B in the cytosol by a modulation of I-kappa-B-alpha phosphorylation.
Cellular Location	Cytoplasm. Endoplasmic reticulum. Note=Cotranslationally translocated to and retained within the endoplasmic reticulum. A small fraction of the protein is cytoplasmic.

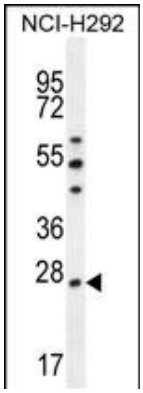
Background

The protein encoded by this gene is an antioxidant enzyme and belongs to the peroxiredoxin family. The protein is localized to the cytoplasm. Peroxidases of the peroxiredoxin family reduce hydrogen peroxide and alkyl hydroperoxides to water and alcohol with the use of reducing equivalents derived from thiol-containing donor molecules. This protein has been found to play a regulatory role in the activation of the transcription factor NF-kappaB.

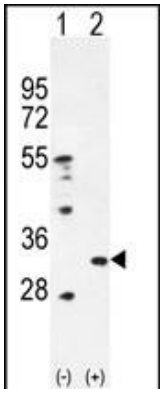
References

Jamaluddin, M., et al. J. Virol. 84(18):9533-9545(2010)
Davila, S., et al. Genes Immun. 11(3):232-238(2010)
Edvardsen, H., et al. Pharmacogenomics J. (2010) In press :
Wang, H.Q., et al. FEBS Lett. 583(9):1511-1515(2009)
Starr, J.M., et al. Mech. Ageing Dev. 129(12):745-751(2008)

Images

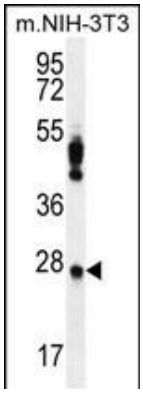


PRDX4 Antibody (Center) (Cat. #AP12100c) western blot analysis in NCI-H292 cell line lysates (35ug/lane).This demonstrates the PRDX4 antibody detected the PRDX4 protein (arrow).

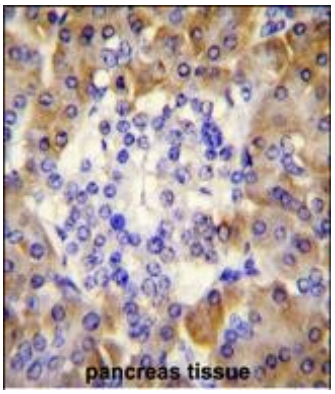


Western blot analysis of PRDX4 (arrow) using rabbit polyclonal PRDX4 Antibody (Center) (Cat. #AP12100c). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the PRDX4 gene.

PRDX4 Antibody (Center) (Cat. #AP12100c) western blot analysis in mouse NIH-3T3 cell line lysates



(35ug/lane).This demonstrates the PRDX4 antibody detected the PRDX4 protein (arrow).



PRDX4 Antibody (Center) (Cat. #AP12100c)immunohistochemistry analysis in formalin fixed and paraffin embedded human pancreas tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of PRDX4 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.