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anti-P4HB antibody (AA 409-509) (Biotin)





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Quantity:	100 μL
Target:	P4HB
Binding Specificity:	AA 409-509
Reactivity:	Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This P4HB antibody is conjugated to Biotin
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunoprecipitation (IP), Immunofluorescence (IF), Immunocytochemistry (ICC)

Product Details

Immunogen:	Rat PDI synthetic peptide (409-509 aa C-terminal) conjugated to KLH
Specificity:	Detects ~58 kDa.
Cross-Reactivity:	Cow, Dog, Guinea Pig, Hamster, Human, Mollusca, Mouse, Pig, Rat, Sheep, Xenopus laevis
Purification:	Peptide Affinity Purified

Target Details

Target:	P4HB
Alternative Name:	PDI (P4HB Products)
Background:	The three dimensional structure of many extracellular proteins is stabilized by the formation of

disulphide bonds. Studies suggest that a micros	somal enzyme known as Protein Disulphide
Isomerase (PDI) is involved in disulphide-bond f	ormation via its oxidase activity and
isomerization via its isomerase activity, as well	as the reduction of disulphide bonds in proteins
(1). Studies suggest BiP and PDI work together	sequentially to increase oxidation of these
proteins (2, 3). PDI has also been found to funct	ion as a chaperone to prevent the aggregation
of unfolded substrates, and serves as a subunit	of prolyl 4-hydroxylase and microsomal
triglyceride transferase (4, 5). PDI is an abundar	nt 55 kDa protein located primarily in the ER,
however studies have also proved its presence	in the cytosol (1). PDI has the ability to reside in
the ER permanently due to the highly conserved	KDEL sequence at its carboxy-terminus (6). It
uses carboxy-terminal KDEL as a retention signa	al, and this appears to be sufficient to reduce
the secretion of proteins from the ER. This reter	ntion is reported to be mediated by a KDEL
receptor (7).	

Gene ID:	287164
NCBI Accession:	NP_001099245
UniProt:	P04785
Pathways:	Maintenance of Protein Location, Cell RedoxHomeostasis, Lipid Metabolism

Application Details

Application Notes:	 WB (1:1000) ICC/IF (1:100) optimal dilutions for assays should be determined by the user.
Comment:	A 1:1000 dilution of ABIN2486775 was sufficient for detection of PDI in 20 µg of HeLa cell lysate by ECL immunoblot analysis.
Restrictions:	For Research Use only

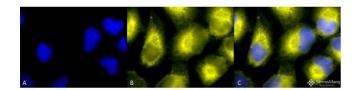
Handling

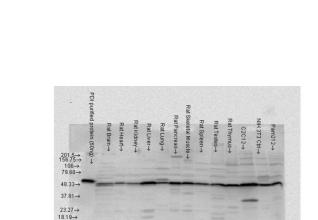
Format:	Liquid
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4, 50 % glycerol, 0.09 % sodium azide, Storage buffer may change when conjugated
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which

Handling

	should be handled by trained staff only.
Storage:	4 °C
Storage Comment:	Conjugated antihodies should be stored at 4°C

Images





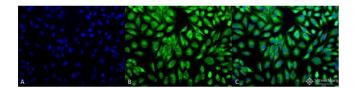
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Immunofluorescence (fixed cells)

Image 1. Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-PDI Polyclonal Antibody . Tissue: HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-PDI Polyclonal Antibody at 1:100 for 12 hours at 4°C. Secondary Antibody: R-PE Goat Anti-Rabbit (yellow) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Endoplasmic reticulum lumen. Melanosome. Magnification: 100x. (A) DAPI (blue) nuclear stain. (B) Anti-PDI Antibody. (C) Composite.

Western Blotting

Image 2. Western blot analysis of Rat tissue mix showing detection of PDI protein using Rabbit Anti-PDI Polyclonal Antibody . Load: 15 μg protein. Block: 1.5% BSA. Primary Antibody: Rabbit Anti-PDI Polyclonal Antibody at 1:4000 for 2 hours at RT. Secondary Antibody: Donkey Anti-Rabbit IgG: HRP for 1 hour at RT.



Immunofluorescence (fixed cells)

Image 3. Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-PDI Polyclonal Antibody . Tissue: HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-PDI Polyclonal Antibody at 1:100 for 12 hours at 4°C. Secondary Antibody: FITC Goat Anti-Rabbit (green) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Endoplasmic reticulum lumen. Melanosome. Magnification: 20x. (A) DAPI (blue) nuclear stain. (B) Anti-PDI Antibody. (C) Composite.