Datasheet for ABIN2486768

anti-P4HB antibody (AA 409-509) (Atto 594)

3 Images

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Overview

Quantity:	100 µL
Target:	P4HB
Binding Specificity:	AA 409-509
Reactivity:	Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This P4HB antibody is conjugated to Atto 594
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

Target Details

	disulphide bonds. Studies suggest that a microsomal enzyme known as Protein Disulphide Isomerase (PDI) is involved in disulphide-bond formation 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 function 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 abundant 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 signal, and this appears to be sufficient to reduce the secretion of proteins from the ER. This retention 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 ABIN2486768 was sufficient for detection of PDI in 20 µg of HeLa cell lysate by ECL immunoblot analysis.
Restrictions:	For Research Use only

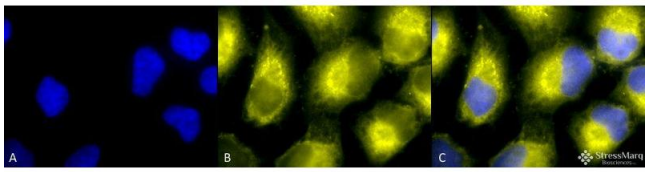
Handling

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

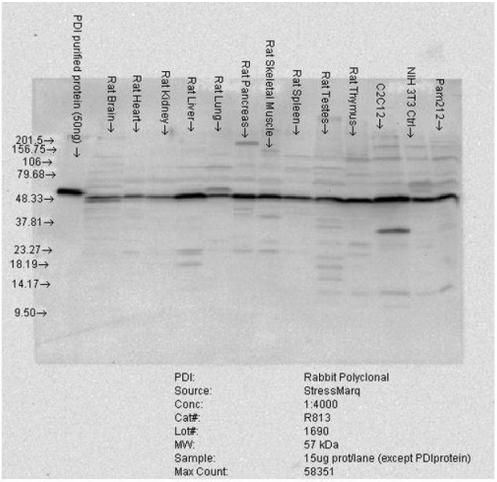
	should be handled by trained staff only.
Storage:	4 °C
Storage Comment:	Conjugated antibodies should be stored at 4°C

Images



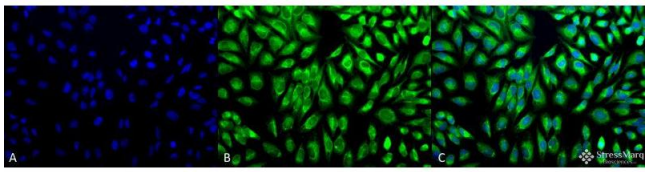
Immunofluorescence (fixed cells)

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.

