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Datasheet for 100-401-G29

PDI Antibody

Overview

Description:	Anti-PDI (RABBIT) Antibody - 100-401-G29
Item No.:	100-401-G29
Size:	100 µL
Applications:	IF, IHC, IP, WB
Reactivity:	Human, Mouse, Rat, Bovine, Dog, Guinea Pig, Hamster, Monkey, Pig, Sheep, Xenopus
Host Species:	Rabbit

Product Details

Background:	The three dimensional structure of many extracellular proteins is stabilized by the formation of 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. Studies suggest BiP and PDI work together sequentially to increase oxidation of these proteins. 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. PDI is an abundant 55kDa protein located primarily in the ER, however studies have also proved its presence in the cytosol. PDI has the ability to reside in the ER permanently due to the highly conserved KDEL sequence at its carboxy-terminus. 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.
Synonyms:	PDA2, PDI, PDIA2, PDIP, pancreatic protein disulfide isomerase, Protein disulfide-isomerase, PDI, Cellular thyroid hormone-binding protein, Prolyl 4-hydroxylase subunit beta
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	Antiserum

Target Details

Gene Name:	P4hb
Reactivity:	Human, Mouse, Rat, Bovine, Dog, Guinea Pig, Hamster, Monkey, Pig, Sheep, Xenopus

Immunogen Type:	Conjugated Peptide
Immunogen:	PDI Antibody was produced from whole rabbit serum prepared by repeated immunizations raised against rat PDI synthetic peptide conjugated to KLH.
Purity/Specificity:	Anti-PDI Antibody was prepared from monospecific antiserum by delipidation and defibrination. A BLAST analysis was used to suggest cross-reactivity with PDI from Human, Mouse, Rat, Dog, Hamster, Monkey, Guinea pig, Bovine, Sheep, Pig, and Xenopus based on 100% homology with the immunizing sequence. Cross-reactivity with PDI from other sources has not been determined. Chaperones, Organelle Markers research.
Relevant Links:	• NCBI - NP_001099245.2 • GeneID - 287164 • UniProtKB - P04785

Application Details

Tested Applications:	IF, IHC, IP, WB
Application Note:	Anti-PDI Antibody is tested for use in WB, IP, IF microscopy and IHC. Expect a band approximately ~58kDa on specific lysates. Specific conditions for reactivity should be optimized by the end user.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
IHC:	User Optimized
IP:	User Optimized
WB:	1:4000

Formulation

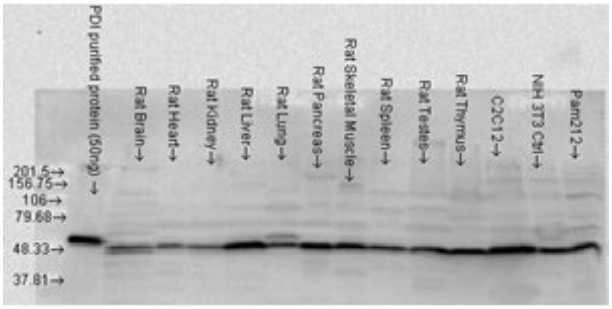
Physical State:	Liquid (sterile filtered)
Concentration:	85 mg/mL by Refractometry
Buffer:	1X PBS, pH 7.4
Preservative:	0.09% (w/v) Sodium Azide
Stabilizer:	50% (v/v) Glycerol

Shipping & Handling

Shipping Condition:	Dry Ice

Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Western Blot
Western Blot of rabbit anti-PDI alpha antibody. Lane 1: Rat Brain. Lane 2: Rat Heart. Lane 3: Rat Kidney. Lane 4: Rat Liver. Lane: 5 Rat Lung. Lane 6:Rat Pancreas. Lane 7: Rat Skeletal Muscle. Lane 8:Rat Spleen. Lane 9: Rat Testes. Lane 10: Rat Thymus. Lane11: C2C12. Lane 12: NIH 3T3 Ctrl. Lane 13: Pam212. Primary antibody: PDI antibody at 1:1000 for overnight at 4°C. Secondary antibody: Goat anti-rabbit IgG HRP secondary antibody at 1:10,000 for 45 min at RT. Block: 5% Blotto overnight 4°C. Predicted/Observed size: 56.9 kDa/58kD. Other band(s): none.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.