abcam

Product datasheet

Anti-PDI antibody [RL90] ab2792

44 Abreviews 95 References 22 Images

Overview

Product name	Anti-PDI antibody [RL90]
Description	Mouse monoclonal [RL90] to PDI
Tested applications	**Suitable for:** ICC/IF, Electron Microscopy, IHC-P, IHC-Fr, IP, WB, ELISA, Inhibition Assay, Flow Cyt
Species reactivity	**Reacts with:** Mouse, Rat, Hamster, Dog, Human, Pig, Monkey, African green monkey **Predicted to work with:** Drosophila melanogaster
Immunogen	Other Immunogen Type corresponding to Rat PDI. Purified rat PDI protein.
Positive control	rat liver

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.05% Sodium azide Constituent: 0.1% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	RL90
Isotype	IgG2a

Applications

Our Abpromise guarantee covers the use of **ab2792** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

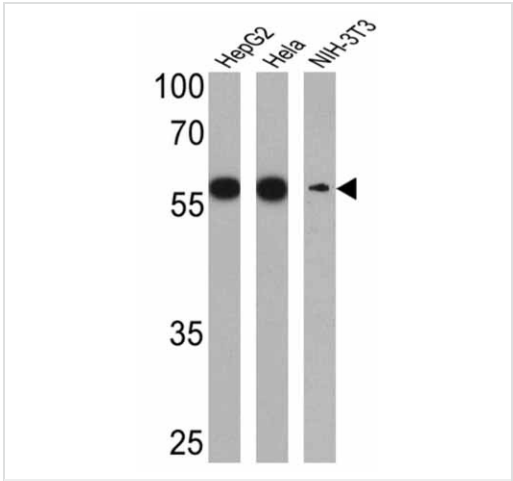
Application	Abreviews	Notes
ICC/IF		1/100. PubMed: 17308099
Electron Microscopy		Use at an assay dependent concentration. PubMed: 21886772

IHC-P	★★★☆☆	1/100. Perform heat mediated antigen retrieval via the microwave method before commencing with IHC staining protocol.
IHC-Fr		1/100.
IP		Use at an assay dependent concentration. This antibody has been shown to inhibit the activity of PDI in vitro. It has also been found to inhibit disulfide bond reduction of the HIV protein, gp120, at the cell surface of CHO cells and human lymphoid cells.
WB	★★★★★	1/1000. Detects a band of approximately 59-61 kDa (predicted molecular weight: 58 kDa). If there is no signal or signal is weak, more concentrated antibody could be used in addition to using less stringent blocking conditions (e.g., BSA instead of milk, incubating the antibody in PBST or TBST only, lower milk percentage).
ELISA		Use at an assay dependent concentration.
Inhibition Assay		Use at an assay dependent concentration.
Flow Cyt		Use 0.5µg for 10^6 cells. ab170191 - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

Target

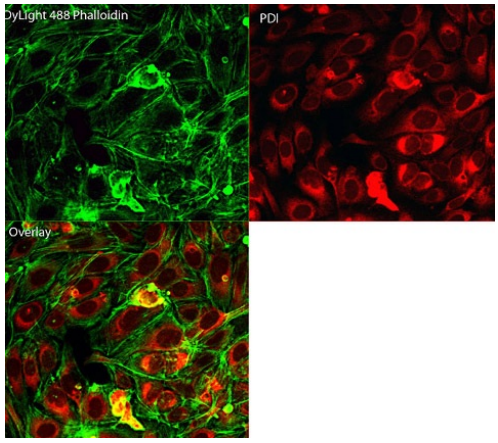
Function	Acts as an intracellular estrogen-binding protein. May be involved in modulating cellular levels and biological functions of estrogens in the pancreas. May act as a chaperone that inhibits aggregation of misfolded proteins.
Tissue specificity	Highly expressed in pancreas (at protein level).
Sequence similarities	Belongs to the protein disulfide isomerase family. Contains 2 thioredoxin domains.
Post-translational modifications	The disulfide-linked homodimer exhibits an enhanced chaperone activity. Glycosylated.
Cellular localization	Endoplasmic reticulum lumen.

Anti-PDI antibody [RL90] images



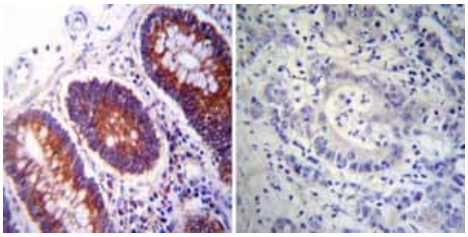
Western blot - Anti-PDI [RL90] antibody (ab2792)

Predicted band size : 58 kDa
Western blot analysis of PDI was performed by loading 25 ug of HepG2 (Lane 1) Hela (Lane 2) and NIH-3T3 (Lane 3) cell lysates onto an SDS polyacrylamide gel. Proteins were transferred to a PVDF membrane and blocked at 4?C overnight. The membrane was probed with ab2792 at 1:1000 overnight at 4?C and washed in TBST. The membrane was then probed with a HRP-conjugated secondary antibody for 1 hr at room temperature in the dark. Chemiluminescent detection was performed using a ECL Plus Western Blotting Substrate. Results show a band at approx. 57 kDa.



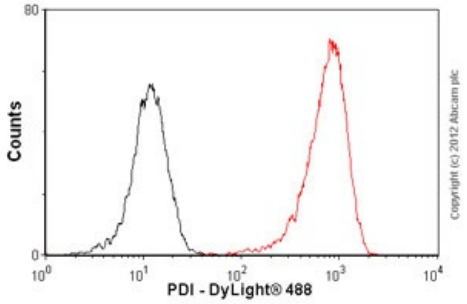
Immunocytochemistry/ Immunofluorescence - Anti-PDI [RL90] antibody (ab2792)

Immunocytochemistry/Immunofluorescence analysis of PDI (red) in U2OS cells. Formalin fixed cells were permeabilized with 0.1% Triton X-100 in PBS for 10 minutes at room temperature and blocked with 2% BSA in PBS + 0.1% Triton X-100 for 30 minutes at room temperature. Cells were probed with ab2792 (1:75) for at least 1 hour at room temperature and incubated with DyLight 550 goat anti-mouse IgG secondary antibody (1:250) for 30 minutes at room temperature. Actin was stained with DyLight 488 Phalloidin at a dilution of 1:300 (1 unit/ml final concentration) for 30 minutes. Images were taken at 20X magnification.



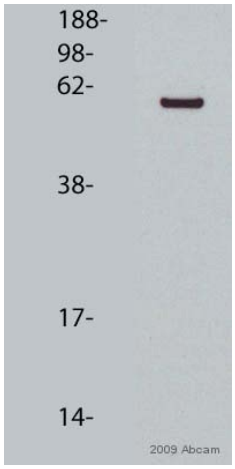
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PDI antibody [RL90] (ab2792)

Immunohistochemistry was performed on both normal and cancer biopsies of deparaffinized Human colon tissue tissues. To expose target proteins heat induced antigen retrieval was performed using 10mM sodium citrate (pH6.0) buffer microwaved for 8-15 minutes. Following antigen retrieval tissues were blocked in 3% BSA-PBS for 30 minutes at room temperature. Tissues were then probed at a dilution of 1:200 with a mouse monoclonal antibody recognizing PDI ab2792 or without primary antibody (negative control) overnight at 4°C in a humidified chamber. Tissues were washed extensively with PBST and endogenous peroxidase activity was quenched with a peroxidase suppressor. Detection was performed using a biotin-conjugated secondary antibody and SA-HRP followed by colorimetric detection using DAB. Tissues were counterstained with hematoxylin and prepped for mounting.



Flow Cytometry - Anti-PDI antibody [RL90] (ab2792)

Overlay histogram showing HeLa cells stained with ab2792 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab2792, 0.5µg/1x10^6 cells) for 30 min at 22ºC. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22ºC. Isotype control antibody (black line) was mouse IgG2a [ICIGG2A] (ab91361, 1µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed.



Western blot - Anti-PDI antibody [RL90] (ab2792)
This image is courtesy of an anonymous Abreview

Anti-PDI antibody [RL90] (ab2792) at 1/2000 dilution

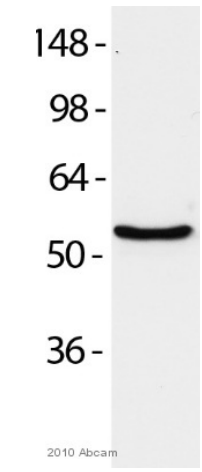
Secondary
Donkey anti mouse IgG2a at 1/10000 dilution
Developed using the ECL technique

Performed under reducing conditions.

Predicted band size : 58 kDa
Observed band size : 57 kDa

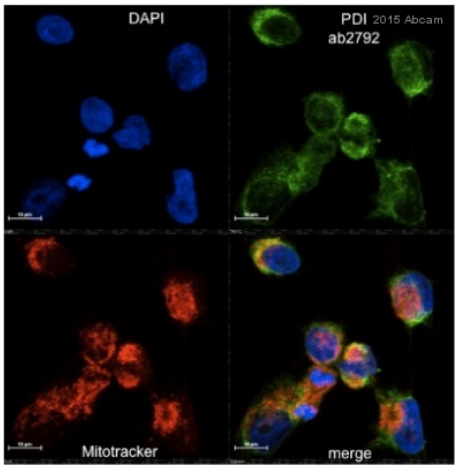
Exposure time : 20 seconds

This image is courtesy of an anonymous Abreview



Western blot - Anti-PDI antibody [RL90] (ab2792)

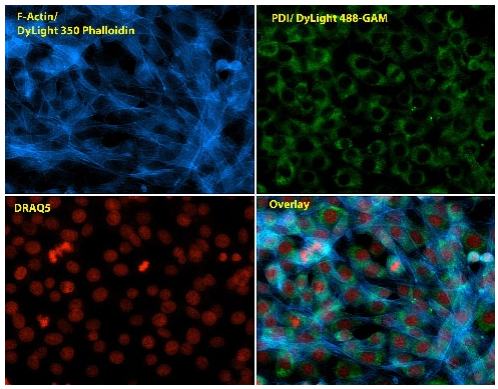
Predicted band size : 58 kDa



Immunocytochemistry/ Immunofluorescence - Anti-PDI antibody [RL90] (ab2792)

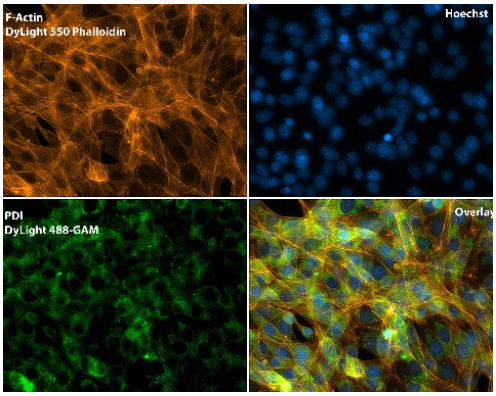
This image is courtesy of an anonymous Abreview

ab2792 staining PDI in MDA MB 231 cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with formaldehyde, permeabilized with 1% Triton X-100 and blocked with 10% BSA for 1 hour at 21°C. Samples were incubated with primary antibody (1/100 in BSA + 0.02% Tween 20) for 1 hour at 16°C. A DyLight® 550-conjugated goat anti-mouse IgG polyclonal (1/500) was used as the secondary antibody.



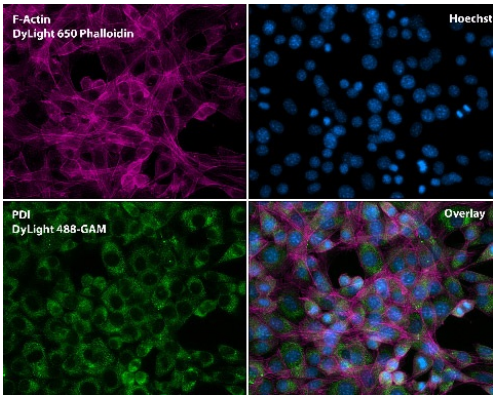
Immunocytochemistry/ Immunofluorescence - Anti-PDI [RL90] antibody (ab2792)

Immunocytochemistry/Immunofluorescence analysis of PDI (green) in NIH 3T3 cells. Formalin fixed cells were permeabilized with 0.1% Triton X-100 in PBS for 10 minutes at room temperature and blocked with 2% BSA in PBS + 0.1% Triton X-100 for 30 minutes at room temperature. Cells were probed with ab2792 (1:75) for at least 1 hour at room temperature and incubated with Dylight 488 goat anti-mouse IgG secondary antibody (1:250) for 30 minutes at room temperature. Actin was stained with Dylight 350 Phalloidin at a dilution of 1:120 (2.5units/ml final concentration) and nuclei (red) were stained with DRAQ5 at a concentration of 1ug/ml for 30 minutes. Images were taken at 20X magnification.



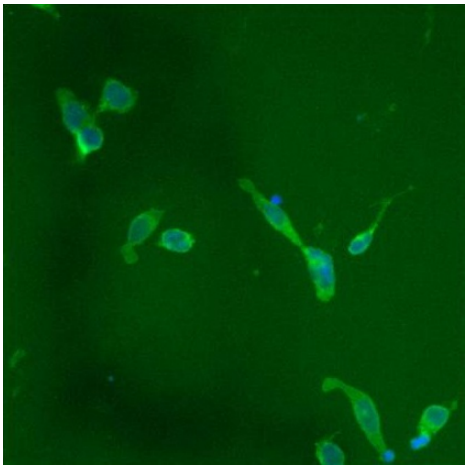
Immunocytochemistry/ Immunofluorescence - Anti-PDI [RL90] antibody (ab2792)

Immunocytochemistry/Immunofluorescence analysis of PDI (green) in NIH 3T3 cells. Formalin fixed cells were permeabilized with 0.1% Triton X-100 in PBS for 10 minutes at room temperature and blocked with 2% BSA in PBS + 0.1% Triton X-100 for 30 minutes at room temperature. Cells were incubated with ab2792 (1:75) for at least 1 hour at room temperature and incubated with DyLight 488 goat anti-mouse IgG secondary antibody (1:250) for 30 minutes at room temperature. Actin was stained with DyLight 550 Phalloidin at a dilution of 1:120 (2.5 units/ml final concentration) and nuclei (blue) were stained with Hoechst at a concentration of 1ug/ml for 30 minutes. Images were taken at 20X magnification.



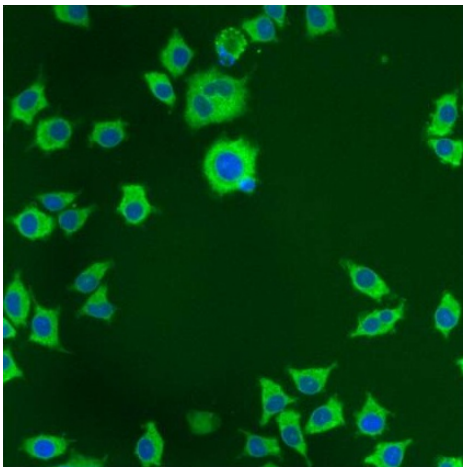
Immunocytochemistry/ Immunofluorescence - Anti-PDI [RL90] antibody (ab2792)

Immunocytochemistry/Immunofluorescence analysis of PDI (green) in NIH 3T3 cells. Formalin fixed cells were permeabilized with 0.1% Triton X-100 in PBS for 10 minutes at room temperature and blocked with 2% BSA in PBS + 0.1% Triton X-100 for 30 minutes at room temperature. Cells were incubated with ab2792 (1:75) for at least 1 hour at room temperature and incubated with DyLight 488 goat anti-mouse IgG secondary antibody (1:250) for 30 minutes at room temperature. Actin was stained with DyLight 650 Phalloidin at a dilution of 1:120 (2.5 units/ml final concentration) and nuclei (blue) were stained with Hoechst at a concentration of 1ug/ml for 30 minutes. Images were taken at 20X magnification.



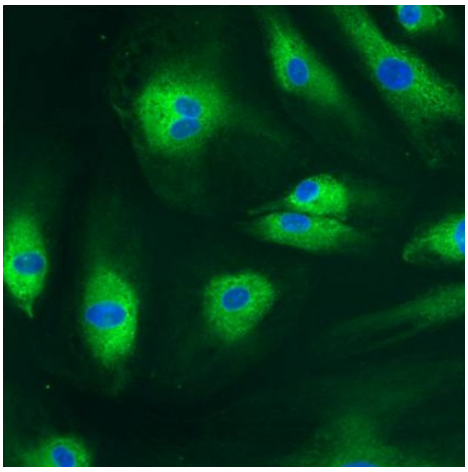
Immunocytochemistry/ Immunofluorescence - Anti-PDI [RL90] antibody (ab2792)

Immunocytochemistry/Immunofluorescent analysis of PDI using ab2792 shows staining in p19 Cells.



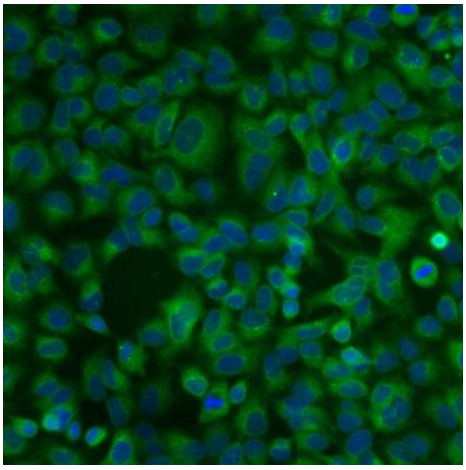
Immunocytochemistry/ Immunofluorescence - Anti-PDI [RL90] antibody (ab2792)

Immunocytochemistry/Immunofluorescent analysis of PDI using ab2792 shows staining in NS-1 Cells.



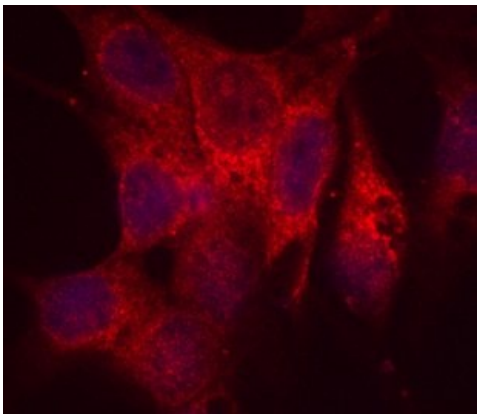
Immunocytochemistry/ Immunofluorescence - Anti-PDI [RL90] antibody (ab2792)

Immunocytochemistry/Immunofluorescent analysis of PDI using ab2792 shows staining in HMVEC Cells.



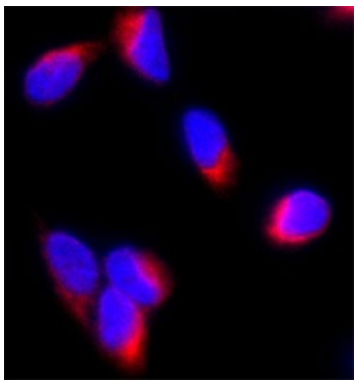
Immunocytochemistry/ Immunofluorescence - Anti-PDI [RL90] antibody (ab2792)

Immunocytochemistry/Immunofluorescent analysis of PDI using ab2792 shows staining in A549 Cells.



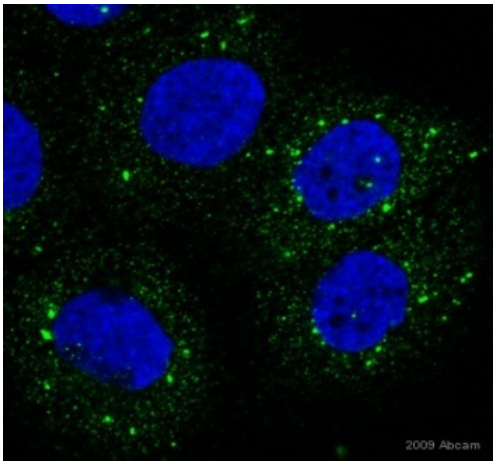
Immunocytochemistry/ Immunofluorescence - Anti-PDI antibody [RL90] (ab2792)

ab2792 positively staining dog MDCK cell ER (red) at 1/200. Staining was carried out in conjunction with goat anti mouse H and L (Alexa 546) at 1/1000. The nuclei can be seen stained with Hoechst (blue)
This image is courtesy of an Abreview submitted by **Kun Liu** on **20 September 2005**. We do not have any further information relating to this image.



Immunocytochemistry/ Immunofluorescence - Anti-PDI antibody [RL90] (ab2792)

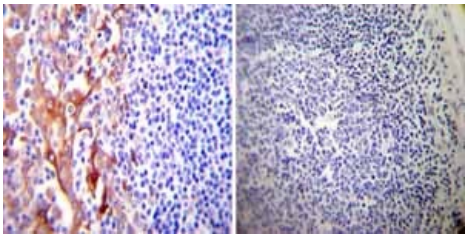
ab2792 positively staining formaldehyde fixed human Hek293 cells (1/200). This Ab was used in conjunction with goat anti mouse Alexa Fluor® 546 (1/1500). The nuclei has been atained with Hoechst.
This image is courtesy of an Abreview submitted by **Kun Liu** on **19th September 2005**. We do not have any further information relating to this image.



Immunocytochemistry/ Immunofluorescence - Anti-PDI antibody [RL90] (ab2792)

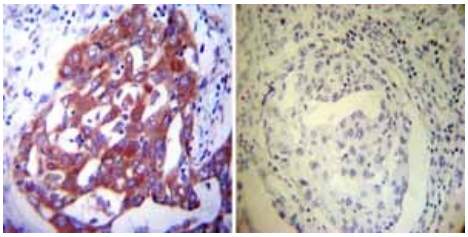
This image is a courtesy of Anonymous Abreview

ab2792 staining PDI from human HaCaT keratinocyte cells by Immunocytochemistry/ Immunofluorescence. Cells were fixed with paraformaldehyde, permeabilized with 0.25 % Triton ×100 and blocking with 2.5% BSAplus 1% goat serum for 1 hour at 4^0C was performed. Samples were incubated with primary antibody, diluted 1/100, for 1 hour at 24^0C. An Alexa Fluor ® 488-conjugated goat polyclonal to mouse IgG was used at dilution at 1/1000 as secondary antibody.



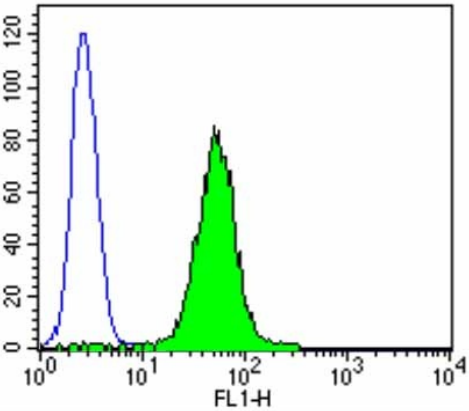
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PDI antibody [RL90] (ab2792)

Immunohistochemistry was performed on both normal and cancer biopsies of deparaffinized Human tonsil tissue tissues. To expose target proteins heat induced antigen retrieval was performed using 10mM sodium citrate (pH6.0) buffer microwaved for 8-15 minutes. Following antigen retrieval tissues were blocked in 3% BSA-PBS for 30 minutes at room temperature. Tissues were then probed at a dilution of 1:200 with a mouse monoclonal antibody recognizing PDI ab2792 or without primary antibody (negative control) overnight at 4°C in a humidified chamber. Tissues were washed extensively with PBST and endogenous peroxidase activity was quenched with a peroxidase suppressor. Detection was performed using a biotin-conjugated secondary antibody and SA-HRP followed by colorimetric detection using DAB. Tissues were counterstained with hematoxylin and prepped for mounting.



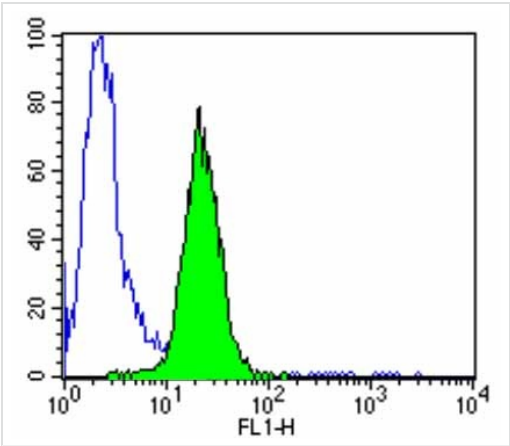
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PDI antibody [RL90] (ab2792)

Immunohistochemistry was performed on both normal and cancer biopsies of deparaffinized Human lung adenocarcinoma tissues. To expose target proteins heat induced antigen retrieval was performed using 10mM sodium citrate (pH6.0) buffer microwaved for 8-15 minutes. Following antigen retrieval tissues were blocked in 3% BSA-PBS for 30 minutes at room temperature. Tissues were then probed at a dilution of 1:200 with a mouse monoclonal antibody recognizing PDI ab2792 or without primary antibody (negative control) overnight at 4°C in a humidified chamber. Tissues were washed extensively with PBST and endogenous peroxidase activity was quenched with a peroxidase suppressor. Detection was performed using a biotin-conjugated secondary antibody and SA-HRP followed by colorimetric detection using DAB. Tissues were counterstained with hematoxylin and prepped for mounting.



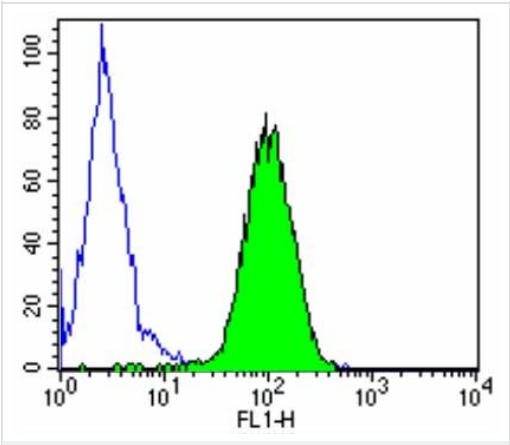
Flow Cytometry - Anti-PDI [RL90] antibody (ab2792)

Flow cytometry analysis of PDI showing positive staining in the membrane and cytoplasm of K562 cells compared to an isotype control (blue). Cells were harvested and adjusted to a concentration of 1-5x10^6 cells/ml. Cells were then fixed with 2% paraformaldehyde and washed with PBS. Cells were blocked with a 2% solution of BSA-PBS for 30 min at room temperature and incubated with ab2792 at 1 ug/test for 60 min at room temperature. Cells were then incubated for 40 min at room temperature in the dark using a Dylight 488-conjugated goat anti-mouse IgG (H+L) secondary antibody and re-suspended in PBS for FACS analysis.



Flow Cytometry - Anti-PDI [RL90] antibody (ab2792)

Flow cytometry analysis of PDI showing positive staining in the membrane and cytoplasm of NIH/3T3 cells compared to an isotype control (blue). Cells were harvested and adjusted to a concentration of 1-5x10^6 cells/ml. Cells were then fixed with 2% paraformaldehyde and washed with PBS. Cells were blocked with a 2% solution of BSA-PBS for 30 min at room temperature and incubated with ab2792 at 0.5 ug/test for 60 min at room temperature. Cells were then incubated for 40 min at room temperature in the dark using a Dylight 488-conjugated goat anti-mouse IgG (H+L) secondary antibody and re-suspended in PBS for FACS analysis.



Flow Cytometry - Anti-PDI [RL90] antibody (ab2792)

Flow cytometry analysis of PDI showing positive staining in the membrane and cytoplasm of Hela cells compared to an isotype control (blue). Cells were harvested and adjusted to a concentration of 1-5x10^6 cells/ml. Cells were then fixed with 2% paraformaldehyde and washed with PBS. Cells were blocked with a 2% solution of BSA-PBS for 30 min at room temperature and incubated with ab2792 at 1 ug/test for 60 min at room temperature. Cells were then incubated for 40 min at room temperature in the dark using a Dylight 488-conjugated goat anti-mouse IgG (H+L) secondary antibody and re-suspended in PBS for FACS analysis.

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