

DESCRIPTION

Species Reactivity	Human
Specificity	Conjugated Protein Disulfide Isomerase/P4HB antibodies are ideal for immunocytochemistry colocalization studies in the lumen of the endoplasmic reticulum. The unconjugated antibody detects human Protein Disulfide Isomerase/P4HB in direct ELISAs and Western blots.
Source	Monoclonal Mouse IgG _{2A} Clone # 537331
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human Protein Disulfide Isomerase/P4HB Asp18-Lys505 Accession # P07237
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

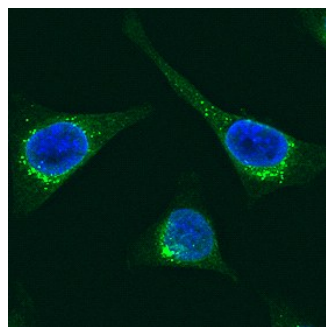
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Immunocytochemistry	1:10 dilution	See Below

DATA

Immunocytochemistry



Protein Disulfide Isomerase/P4HB in HeLa Human Cell Line. Protein Disulfide Isomerase/P4HB was detected in formaldehyde fixed HeLa human cervical epithelial carcinoma cell line using Mouse Anti-Human Protein Disulfide Isomerase/P4HB Alexa Fluor® 488-conjugated Monoclonal Antibody (Catalog # IC4236G) at 1:10 dilution for 3 hours at room temperature and counterstained with DAPI (blue). Specific staining was localized to the endoplasmic reticulum. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage **Protect from light. Do not freeze.**

- 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

P4HB (Prolyl 4-hydroxylase beta chain; also PDI) is a 60 kDa member of the protein disulfide isomerase family. As an intracellular homodimer, it forms a tetrameric complex with P4H alpha chains to form an active prolyl 4-hydroxylase. This catalyses the hydroxylation of proline in collagen. On the cell surface, it reduces disulfide bonds in HIV that allow the virus to fuse with CXCR4 and enter susceptible cells. Mature human P4HB is 491 amino acids (aa) in length. It contains two TRX domains (aa 25-134 and 368-475) plus an ER retention sequence (aa 505-508). There is one potential isoform that shows an 11 aa substitution for the first 162 amino acids. Over aa 18-505, human P4HB shares 94% aa identity with mouse P4HB.

PRODUCT SPECIFIC NOTICES

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