

# Anti-Human Protein Disulfide Isomerase/P4HB-NL557

Catalog Number: NL7986R

Lot Number: ADNM01

100 Tests in 50  $\mu$ L staining volume

20 Tests in 250  $\mu$ L staining volume

## REAGENTS PROVIDED

**NorthernLights™ 557 (NL557)-conjugated goat polyclonal anti-Human P4HB:** Supplied as a 10X solution of antibody in 0.5 mL PBS containing 0.09% sodium azide.

**Isotype:** polyclonal goat IgG

## STORAGE

Reagents are stable for **twelve months** from date of receipt when stored in the dark at 2-8 °C.

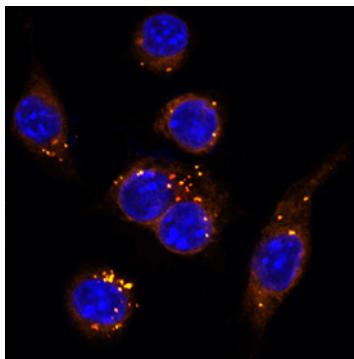
## INTENDED USE

Designed to visualize the expression of Human P4HB by fluorescence microscopy for staining cells and tissues. Conjugated P4HB antibodies are ideal for immunocytochemistry colocalization studies in the lumen of the endoplasmic reticulum.

## PRODUCT DESCRIPTION

Produced in goat immunized with Chinese hamster ovary cell line CHO-derived recombinant human P4HB (Asp18-Lys505; Accession # P07237). The antigen affinity-purified antibody was then conjugated to fluorochrome NL557. The spectral characteristics of NL557 are provided, along with those of Rhodamine Red™-X (RRX) and Cy™3 for comparison.

Fluorochrome	Absorption Maximum (nm)	Emission Maximum (nm)
NL557	557	574
RRX	570	590
Cy3	548	562



Sheep anti-human P4HB

Immunofluorescent detection of P4HB (yellow color) in fixed HeLa cells. Nuclei were labeled with DAPI (blue color).

## BACKGROUND INFORMATION

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. 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). Over aa 18-505, human P4HB shares 94% aa identity with mouse P4HB. It contains two TRX domains (aa 25-134 and 368-475) plus an ER retention sequence (aa 505-508), and can be used for colocalization studies in the lumen of the endoplasmic reticulum (1).

## REFERENCES

1. Ko, H.S., et al. (2002) J. Biol. Chem 277:35386.

## FLUORESCENT STAINING VALIDATION

This antibody has been tested for immunofluorescent detection of P4HB in HeLa cells fixed in 2% formaldehyde. Cells were incubated with goat anti-human P4HB antibody conjugated to NL557 at a final concentration of 1X (1:10 dilution) overnight at 4 °C. After washing with PBS, cells were counterstained with DAPI to label cell nuclei. If a staining volume of 250  $\mu$ L is used, this vial can be used for 20 tests; 100 tests can be done in a staining volume of 50  $\mu$ L.

**Warning:** Contains sodium azide as a preservative. Sodium azide may react with lead and copper plumbing to form explosive metal azides. Flush with large volumes of water during disposal.

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