



Anti-human Protein Disulfide Isomerase/P4HB Antibody

ORDERING INFORMATION

Catalog Number: AF4236

Lot Number: ZEA01

Size: 100 µg

Formulation: 0.2 µm filtered solution in PBS with 5% trehalose

Storage: -20° C

Reconstitution: sterile PBS

Specificity: human P4HB

Immunogen: CHO cell-derived rhP4HB (aa 14 - 154)

Ig Type: goat IgG

Applications: Western blot
Immunoprecipitation
Direct ELISA

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.

Preparation

Produced in goat immunized with purified, CHO cell-derived, recombinant human P4HB (rhP4HB; aa 18 - 505; Accession # P07237). Human P4HB specific IgG was purified by human P4HB affinity chromatography.

Formulation

Lyophilized from a 0.2 µm filtered solution in phosphate-buffered saline (PBS) with 5% trehalose.

Reconstitution

Reconstitute with sterile PBS. If 0.5 mL of PBS is used, the antibody concentration will be 0.2 mg/mL.

Storage

Lyophilized samples are stable for twelve months from date of receipt when stored at -20° C to -70° C. Upon reconstitution, the antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Reconstituted antibody can also be aliquotted and stored frozen at -20° C to -70° C **in a manual defrost freezer** for six months without detectable loss of activity. **Avoid repeated freeze-thaw cycles.**

Specificity

This antibody has been selected for its ability to recognize human P4HB in direct ELISAs and Western blots.

Applications

Western blot - This antibody can be used at 0.1 - 0.2 µg/mL with the appropriate secondary reagents to detect human P4HB. The detection limit for rhP4HB is approximately 5 ng/lane.

Immunoprecipitation - This antibody has been used to immunoprecipitate rhP4HB from conditioned media of transfected NS0 cells.

Direct ELISA - This antibody can be used at 0.5 - 1.0 µg/mL with the appropriate secondary reagents to detect human P4HB. The detection limit for rhP4HB is approximately 0.5 ng/well.

Optimal dilutions should be determined by each laboratory for each application.