

Rabbit P4HB Polyclonal Antibody | anti-P4HB antibody

Anti-P4HB Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA19258	Rabbit	Human, Monkey, Mouse, Rat	Western Blot, Immunohistochemistry, Immunocytochemistry, Immunofluorescence, Flow Cytometry, Functional Assay, ELISA

PRODUCT SYNONYMS

P4HB; Polyclonal Antibody; Anti-P4HB Antibody; ERBA2L; PDI; PDIA1; PO4DB; Protein disulfide-isomerase; EC 5. 3. 4. 1; Cellular thyroid hormone-binding protein; Prolyl 4-hydroxylase subunit beta; p55; prolyl 4-hydroxylase subunit beta; anti-P4HB antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Monkey, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for P4HB detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na2HPO4.
Applicable Applications for anti-P4HB antibody	WB (Western Blot), IHC (Immunohistochemistry), ICC (Immunocytochemistry), IF (Immunofluorescence), FCM/FACS (Flow Cytometry), ELISA (Direct ELISA)
Application Notes	WB: 0.1-0.25ug/ml Human, Monkey, Mouse, Rat IHC-P: 2-5ug/ml Human, Mouse, Rat ICC/IF: 5ug/ml Human FC/FACS/FCM: 1-3ug/1x106 cells Human Direct ELISA: 0.1-0.5ug/ml Human
Immunogen	E Coli-derived human P4HB recombinant protein (Position: A146-D363).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.



IF (Immunofluorescence)

Figure 9. IF analysis of P4HB using anti-P4HB antibody (AAA19258).P4HB was detected in immunocytochemical section of T-47D cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5µg/mL rabbit anti-P4HB Antibody (AAA19258) overnight at 4 degree C. DyLight®488 Conjugated Goat Anti-Rabbit IgG was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



FCM (Flow Cytometry)

Figure 8. Flow Cytometry analysis of U937 cells using anti-P4HB antibody (AAA19258).Overlay histogram showing U937 cells stained with AAA19258 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-P4HB Antibody (AAA19258, 1µg/1x10⁶ cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10µg/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1µg/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



IHC (Immunohistochemistry)

Figure 7. IHC analysis of P4HB using anti-P4HB antibody (AAA19258).P4HB was detected in paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2µg/mL rabbit anti-P4HB Antibody (AAA19258) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 6. IHC analysis of P4HB using anti-P4HB antibody (AAA19258).P4HB was detected in paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2µg/mL rabbit anti-P4HB Antibody (AAA19258) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 5. IHC analysis of P4HB using anti-P4HB antibody (AAA19258).P4HB was detected in paraffin-embedded section of human renal clear cell carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2µg/mL rabbit anti-P4HB Antibody (AAA19258) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 4. IHC analysis of P4HB using anti-P4HB antibody (AAA19258).P4HB was detected in paraffin-embedded section of human lymphoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2µg/mL rabbit anti-P4HB Antibody (AAA19258) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen.

ADDITIONAL INFORMATION

Related Product Information for anti-P4HB antibody	Protein disulfide-isomerase, also known as the beta-subunit of prolyl 4-hydroxylase (P4HB), is an enzyme that in humans encoded by the P4HB gene. This gene encodes the beta subunit of prolyl 4-hydroxylase, a highly abundant multifunctional enzyme that belongs to the protein disulfide isomerase family. When present as a tetramer consisting of two alpha and two beta subunits, this enzyme is involved in hydroxylation of prolyl residues in procollagen. This enzyme is also a disulfide isomerase containing two thioredoxin domains that catalyze the formation, breakage and rearrangement of disulfide bonds. Other known functions include its ability to act as a chaperone that inhibits aggregation of misfolded proteins in a concentration-dependent manner, its ability to bind thyroid hormone, its role in both the influx and efflux of S-nitrosothiol-bound nitric oxide, and its function as a subunit of the microsomal triglyceride transfer protein complex.
References	1. Cheng, S. Y., Gong, Q. H., Parkinson, C., Robinson, E. A., Appella, E., Merlino, G. T., Pastan, I. The nucleotide sequence of a human cellular thyroid hormone-binding protein present in endoplasmic reticulum. J. Biol. Chem. 262: 11221-11227, 1987. 2. Koivu, J., Myllyla, R., Halaakoski, T., Pihlajaniemi, T., Tasanen, K., Kivirikko, K. I. A single polypeptide acts both as the beta subunit of prolyl 4-hydroxylase and as a protein disulfide-isomerase. J. Biol. Chem. 262: 6447-6449, 1987. 3. Mezghrani, A., Fassio, A., Benham, A., Simmen, T., Braakman, I., Sitia, R. Manipulation of oxidative protein folding and PDI redox state in mammalian cells. EMBO J. 20: 6288-6296, 2001.

NCBI AND UNIPROT INFORMATION

NCBI GI #	20070125
NCBI GeneID	5034
NCBI Accession #	NP_000909.2
NCBI GenBank Nucleotide #	NM_000918.3
UniProt Accession #	P07237; P30037; P32079; Q15205; Q6LDE5; B2RDQ2
Molecular Weight	508
NCBI Official Full Name	protein disulfide-isomerase
NCBI Official Synonym Full Names	prolyl 4-hydroxylase, beta polypeptide
NCBI Official Symbol	P4HB
NCBI Official Synonym Symbols	DSI; GIT; PDI; PHDB; PDIA1; PO4DB; PO4HB; PROHB; ERBA2L; P4Hbeta
NCBI Protein Information	protein disulfide-isomerase; p55; procollagen hydroxylase; prolyl 4-hydroxylase subunit beta; collagen prolyl 4-hydroxylase beta; thyroid hormone-binding protein p55; glutathione-insulin transhydrogenase; cellular thyroid hormone-binding protein; protei
UniProt Protein Name	Protein disulfide-isomerase
UniProt Gene Name	P4HB
UniProt Synonym Gene Names	ERBA2L; PDI; PDIA1; PO4DB; PDI
UniProt Entry Name	PDIA1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/p4hb-antibody-western-blot-immunohistochemistry-immunocytochemistry-immunofluorescence-flow-cytometry-direct-elisa-elisa/19258>