

Rabbit anti-Mouse P4HB Monoclonal Antibody | anti-P4HB antibody

Recombinant Anti-P4HB Antibody, Rabbit Monoclonal

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA257197	Rabbit	Mouse	Immunofluorescence, Immunocytochemistry, Immunohistochemistry

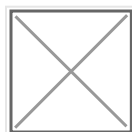
PRODUCT SYNONYMS

P4HB; Monoclonal Antibody; Recombinant Anti-P4HB Antibody; Rabbit Monoclonal; P4HB Antibody; Rabbit MAb; prolyl 4-hydroxylase; beta polypeptide; Anti-ERp59 Antibody; Anti-PDI Antibody; Anti-Pdia1 Antibody; Anti-Thbp Antibody; anti-P4HB antibody

PRODUCT SPECIFICATIONS

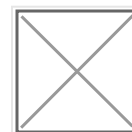
Host	Rabbit
Reactivity	Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Number	023
Specificity	Mouse P4HB
Purity/Purification	Protein A
Form/Format	Liquid; 0.2um filtered solution in PBS
Applicable Applications for anti-P4HB antibody	IF (Immunofluorescence), ICC (Immunocytochemistry), IHC (Immunohistochemistry)
Antibody Type	Recombinant Antibody
Immunogen	Recombinant Mouse P4HB protein
Conjugation	Unconjugated
Preparation	This antibody was obtained from a rabbit immunized with purified, recombinant Mouse P4HB (rM P4HB).
Preparation and Storage	This antibody can be stored at 2-8 degree C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 degree C to -80 degree C. Preservative-Free. Avoid repeated freeze-thaw cycles.

IMAGES



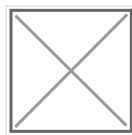
IF (Immunofluorescence)

Immunofluorescence staining of P4HB in NIH/3T3 cells. Cells were fixed with 4% PFA, permeabilized with 0.3% Triton X-100 in PBS, blocked with 10% serum, and incubated with rabbit anti-mouse P4HB monoclonal antibody (1:60) at 4 degree C overnight. Then cells were stained with the Alexa Fluor 488-conjugated Goat Anti-rabbit IgG secondary antibody (green) and counterstained with DAPI (blue).

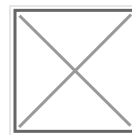


IHC (Immunohistochemistry)

Immunochemical staining of mouse P4HB in mouse brain with rabbit monoclonal antibody (1:200, formalin-fixed paraffin embedded sections).

**IHC (Immunohistochemistry)**

Immunochemical staining of mouse P4HB in mouse intestine with rabbit monoclonal antibody (1:200, formalin-fixed paraffin embedded sections).

**IHC (Immunohistochemistry)**

Immunochemical staining of mouse P4HB in mouse liver with rabbit monoclonal antibody (1:200, formalin-fixed paraffin embedded sections).

ADDITIONAL INFORMATION

Related Product Information for anti-P4HB antibody	Protein disulfide-isomerase, also known as Cellular thyroid hormone-binding protein, Prolyl 4-hydroxylase subunit beta, p55 and P4HB, is a peripheral membrane protein that belongs to the protein disulfide isomerase family. P4HB is highly abundant. In some cell types, it seems to be also secreted or associated with the plasma membrane, where it undergoes constant shedding and replacement from intracellular sources. P4HB localizes near CD4-enriched regions on lymphoid cell surfaces. It is identified by mass spectrometry in melanosome fractions from stage I to stage IV. P4HB reduces and may activate fusogenic properties of HIV-1 gp12 surface protein, thereby enabling HIV-1 entry into the cell. P4HB catalyzes the formation, breakage and rearrangement of disulfide bonds. At the cell surface, it seems to act as a reductase that cleaves disulfide bonds of proteins attached to the cell. P4HB may therefore cause structural modifications of exofacial proteins. Inside the cell, it seems to form/rearrange disulfide bonds of nascent proteins. At high concentrations, P4HB functions as a chaperone that inhibits aggregation of misfolded proteins. At low concentrations, it facilitates aggregation (anti-chaperone activity). P4HB may be involved with other chaperones in the structural modification of the TG precursor in hormone biogenesis. It also acts as a structural subunit of various enzymes such as prolyl 4-hydroxylase and microsomal triacylglycerol transfer protein MTTP.
References	Kivirikko KI, et al., 1989, FASEB J., 3 (5): 1609-17. Pihlajaniemi T, et al., 1991, J Hepatol., 13, Suppl 3: S2 Fenouillet E., et al., 2001, J. Infect. Dis. 183:744-752. Gevaert K., et al., 2003, Nat. Biotechnol. 21:566-569. Barbouche R., et al., 2003, J. Biol. Chem. 278:3131-3136.

NCBI AND UNIPROT INFORMATION

NCBI GI #	42415475
NCBI GeneID	18453
NCBI Accession #	NP_035162.1
NCBI GenBank Nucleotide #	NM_011032.2
UniProt Accession #	P09103 ; Q922C8
Molecular Weight	57,058 Da
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	PDI; Thbp; ERp59; Pdia1
NCBI Protein Information	protein disulfide-isomerase
UniProt Protein Name	Protein disulfide-isomerase
UniProt Gene Name	P4hb
UniProt Synonym Gene Names	Pdia1; PDI; ER protein 59; ERp59
UniProt Entry Name	PDIA1_MOUSE

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.