

Recombinant P4HB Monoclonal Antibody

catalog number: **AN300541P**

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description

Reactivity	Mouse
Immunogen	Recombinant Mouse P4HB protein
Host	Rabbit
Isotype	IgG
Clone	3F9
Purification	Protein A
Buffer	0.2 µm filtered solution in PBS

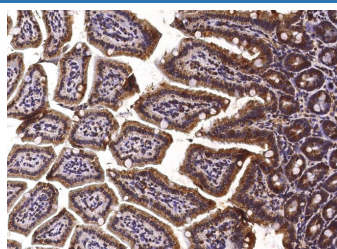
Applications Recommended Dilution

IHC-P	1:100-1:500
ICC/IF	1:20-1:100

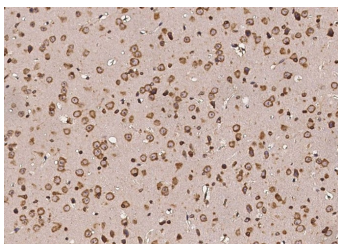
Data



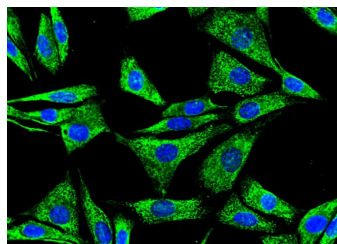
Immunohistochemistry of paraffin-embedded mouse liver using P4HB Monoclonal Antibody at dilution of 1:200.



Immunohistochemistry of paraffin-embedded mouse intestine using P4HB Monoclonal Antibody at dilution of 1:200.



Immunohistochemistry of paraffin-embedded mouse brain using P4HB Monoclonal Antibody at dilution of 1:200.



Immunofluorescence analysis 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°C overnight. Then cells were stained with the Alexa Fluor® 488-conjugated Goat Anti-rabbit IgG secondary antibody (green) and counterstained with DAPI (blue).

Preparation & Storage

Storage	This antibody can be stored at 2°C-8°C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20°C to -80°C. Preservative-Free. Avoid repeated freeze-thaw cycles.
Shipping	Ice bag

Background

For Research Use Only

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Rev. V1.0

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.