Datasheet for ABIN7320210

P4HB Protein (His tag)

1 Image

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Overview

Quantity:	100 µg
Target:	P4HB
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This P4HB protein is labelled with His tag.

Product Details

Purpose:	Recombinant Mouse P4HB Protein (His Tag)(Active)
Sequence:	Met 1-Lys 506
Characteristics:	A DNA sequence encoding the mouse P4HB (NP_035162.1) (Met 1-Lys 506) was expressed, with a C-terminal polyhistidine tag.
Purity:	> 95 % as determined by SDS-PAGE
Endotoxin Level:	< 1.0 EU per µg of the protein as determined by the LAL method.
Biological Activity Comment:	Measured by its ability to promote aggregation of insulin in the presence of DTT. The specific activity is > 7.5 A650/min/mg

Target Details

Target:	P4HB

Target Details

Alternative Name:	P4HB (P4HB Products)
Background:	Background: Protein disulfide-isomerase, also known as Cellular thyroid hormone-binding protein, Prolyl 4-hydroxylase subunit beta, p55 and P4HB, is a peripheral membrane protein which 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 gp120 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 a structural subunit of various enzymes such as prolyl 4-hydroxylase and microsomal triacylglycerol transfer protein MTTP. Synonym: ERp59,PDI,Pdia1,Thbp
Molecular Weight:	56.2 kDa
NCBI Accession:	NP_035162
Pathways:	Maintenance of Protein Location, Cell RedoxHomeostasis, Lipid Metabolism

Application Details

Restrictions:	For Research Use only

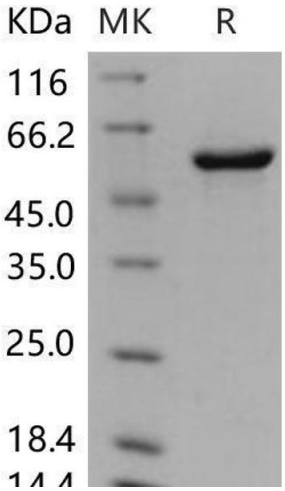
Handling

Format:	Lyophilized
Reconstitution:	Please refer to the printed manual for detailed information.
Buffer:	Lyophilized from sterile PBS, pH 7.4
Storage:	4 °C,-20 °C,-80 °C
Storage Comment:	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C.

Handling

Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Images



Western Blotting

Image 1.