# abcam

## Product datasheet

## Recombinant human P4HB protein (His tag) ab206803

## 1 Image

**Description** 

Product name Recombinant human P4HB protein (His tag)

Biological activity > 100 A<sub>650</sub>/cm/min/mg. Enzymatic activity was confirmed by measuring the aggregation of insulin

in the presence of DTT.

Purity > 90 % SDS-PAGE.

**Expression system** Escherichia coli

Accession P07237

Protein length Full length protein

Animal free No

Nature Recombinant

**Species** Human

Sequence MGSSHHHHHH SSGLVPRGSH MDAPEEEDHV

LVLRKSNFAE ALAAHKYLLV EFYAPWCGHC KALAPEYAKA AGKLKAEGSE IRLAKVDATE ESDLAQQYGV RGYPTIKFFR NGDTASPKEY TAGREADDIV NWLKKRTGPA ATTLPDGAAA

ESLVESSEVA VIGFFKDVES DSAKQFLQAA EAIDDIPFGI

TSNSDVFSKY QLDKDGVVLF KKFDEGRNNF

EGEVTKENLL DFIKHNQLPL VIEFTEQTAP KIFGGEIKTH
ILLFLPKSVS DYDGKLSNFK TAAESFKGKI LFIFIDSDHT
DNQRILEFFG LKKEECPAVR LITLEEEMTK YKPESEELTA

ERITEFCHRF LEGKIKPHLM SQELPEDWDK
QPVKVLVGKN FEDVAFDEKK NVFVEFYAPW
CGHCKQLAPI WDKLGETYKD HENIVIAKMD
STANEVEAVK VHSFPTLKFF PASADRTVID
YNGERTLDGF KKFLESGGOD GAGDDDDLED

LEEAEEPDME EDDDQKAVKD EL

Predicted molecular weight 57 kDa

Amino acids 18 to 508

Tags His tag N-Terminus

Additional sequence information This product is for the mature full length protein from aa 18 to 508. The signal peptide is not

included.

#### **Specifications**

Our Abpromise quarantee covers the use of ab206803 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

**Applications** Mass Spectrometry

SDS-PAGE

**Functional Studies** 

Mass spectrometry

**MALDI-TOF** 

Form

Liquid

#### **Preparation and Storage**

#### Stability and Storage

Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long

term. Avoid freeze / thaw cycle.

pH: 8.00

Constituents: 0.32% Tris HCI, 10% Glycerol (glycerin, glycerine)

This product is an active protein and may elicit a biological response in vivo, handle with caution.

#### General Info

**Function** 

This multifunctional protein catalyzes the formation, breakage and rearrangement of disulfide bonds. At the cell surface, seems to act as a reductase that cleaves disulfide bonds of proteins attached to the cell. May therefore cause structural modifications of exofacial proteins. Inside the cell, seems to form/rearrange disulfide bonds of nascent proteins. At high concentrations, functions as a chaperone that inhibits aggregation of misfolded proteins. At low concentrations, facilitates aggregation (anti-chaperone activity). May be involved with other chaperones in the structural modification of the TG precursor in hormone biogenesis. Also acts a structural subunit of various enzymes such as prolyl 4-hydroxylase and microsomal triacylglycerol transfer protein

Sequence similarities

Belongs to the protein disulfide isomerase family.

Contains 2 thioredoxin domains.

**Cellular localization** 

Endoplasmic reticulum lumen. Melanosome. Cell membrane. Highly abundant. In some cell types, seems to be also secreted or associated with the plasma membrane, where it undergoes constant shedding and replacement from intracellular sources (Probable). Localizes near CD4-enriched regions on lymphoid cell surfaces. Identified by mass spectrometry in melanosome fractions from stage I to stage IV.

## **Images**



15% SDS-PAGE analysis of ab206803: 3µg loaded

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