

**Anti-P4HB Rabbit Monoclonal Antibody**  
**Catalog # ABO15982****Specification****Anti-P4HB Rabbit Monoclonal Antibody - Product Information**

Application	WB, IHC, IF, ICC, FC
Primary Accession	<a href="#">P07237</a>
Host	Rabbit
Isotype	IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid

**Description**

Anti-P4HB Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF, Flow Cytometry applications.  
This antibody reacts with Human, Mouse, Rat.

**Anti-P4HB Rabbit Monoclonal Antibody - Additional Information**

**Gene ID** 5034

**Other Names**

Protein disulfide-isomerase, PDI, 5.3.4.1, Cellular thyroid hormone-binding protein, Prolyl 4-hydroxylase subunit beta, p55, P4HB, ERBA2L, PDI, PDIA1, PO4DB

**Calculated MW**

57 kDa KDa

**Application Details**

WB 1:500-1:2000<br>IHC 1:100-1:500<br>ICC/IF 1:50-1:200<br>FC 1:50

**Contents**

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

**Immunogen**

A synthesized peptide derived from human P4HB

**Purification**

Affinity-chromatography

**Storage**

**Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.**

**Anti-P4HB Rabbit Monoclonal Antibody - Protein Information**

**Name** P4HB

**Synonyms** ERBA2L, PDI, PDIA1, PO4DB

### 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 and following phosphorylation by FAM20C, functions as a chaperone that inhibits aggregation of misfolded proteins (PubMed:<a href="http://www.uniprot.org/citations/32149426" target="\_blank">32149426</a>). 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 as a structural subunit of various enzymes such as prolyl 4-hydroxylase and microsomal triacylglycerol transfer protein MTTP. Receptor for LGALS9; the interaction retains P4HB at the cell surface of Th2 T helper cells, increasing disulfide reductase activity at the plasma membrane, altering the plasma membrane redox state and enhancing cell migration (PubMed:<a href="http://www.uniprot.org/citations/21670307" target="\_blank">21670307</a>).

### Cellular Location

Endoplasmic reticulum. Endoplasmic reticulum lumen. Melanosome. Cell membrane; Peripheral membrane protein. Note=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 (PubMed:11181151). Identified by mass spectrometry in melanosome fractions from stage I to stage IV (PubMed:10636893) Colocalizes with MTTP in the endoplasmic reticulum (PubMed:23475612) {ECO:0000269|PubMed:10636893, ECO:0000269|PubMed:11181151, ECO:0000269|PubMed:23475612, ECO:0000305}

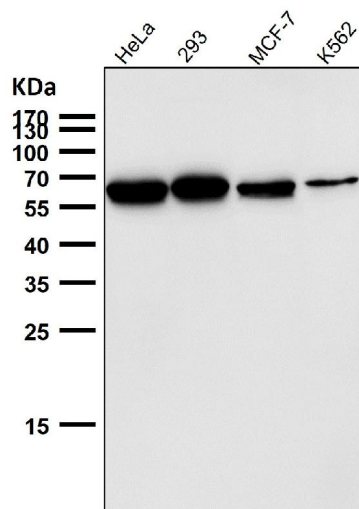
### Anti-P4HB Rabbit Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

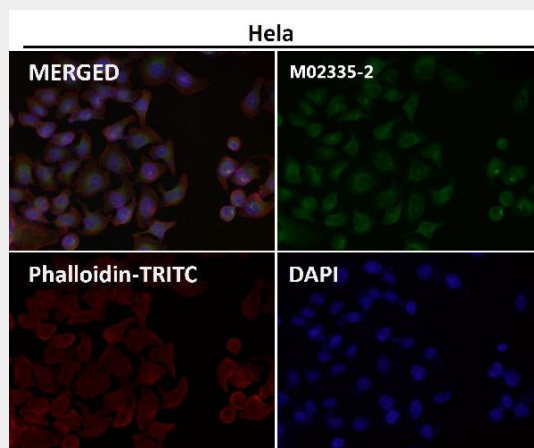
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Anti-P4HB Rabbit Monoclonal Antibody - Images

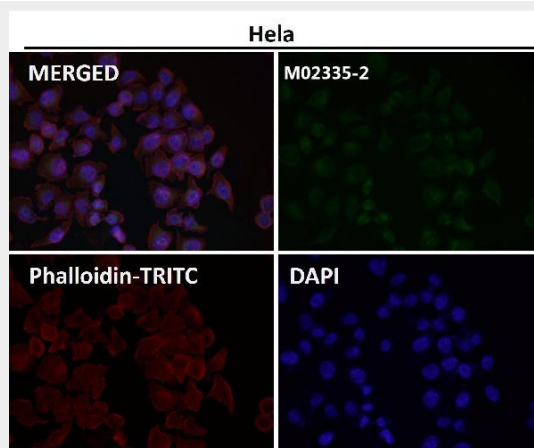




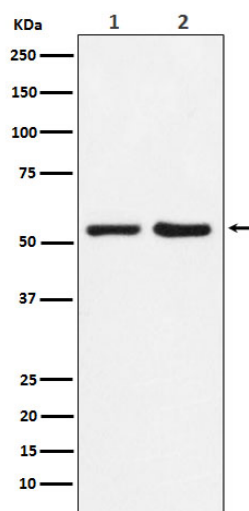
All lanes use the Antibody at 1:5K dilution for 1 hour at room temperature.



Immunofluorescent analysis using the Antibody at 1:50 dilution.



Immunofluorescent analysis using the Antibody at 1:150 dilution.



Western blot analysis of P4HB expression in (1) HepG2 cell lysate; (2) Mouse spleen lysate.