

**PHB Antibody**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO1614a**

**Specification**

**PHB Antibody - Product Information**

Application	E, WB, IHC, IF, FC
Primary Accession	<a href="#">P35232</a>
Reactivity	Human, Mouse, Rat, Monkey
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	30kDa KDa

**Description**

Prohibitin is an evolutionarily conserved gene that is ubiquitously expressed. It is thought to be a negative regulator of cell proliferation and may be a tumor suppressor. Mutations in PHB have been linked to sporadic breast cancer. Prohibitin is expressed as two transcripts with varying lengths of 3' untranslated region. The longer transcript is present at higher levels in proliferating tissues and cells, suggesting that this longer 3' untranslated region may function as a trans-acting regulatory RNA.

**Immunogen**

Purified recombinant fragment of human PHB expressed in E. Coli. <br />

**Formulation**

Ascitic fluid containing 0.03% sodium azide.

**PHB Antibody - Additional Information**

**Gene ID** 5245

**Other Names**

Prohibitin, PHB

**Dilution**

E~~1/10000  
WB~~1/500 - 1/2000  
IHC~~1/200 - 1/1000  
IF~~1/200 - 1/1000  
FC~~1/200 - 1/400

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

PHB Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## PHB Antibody - Protein Information

**Name** PHB1 {ECO:0000303|PubMed:28017329, ECO:0000312|HGNC:HGNC:8912}

### Function

Protein with pleiotropic attributes mediated in a cell- compartment- and tissue-specific manner, which include the plasma membrane-associated cell signaling functions, mitochondrial chaperone, and transcriptional co-regulator of transcription factors in the nucleus (PubMed:<a href="http://www.uniprot.org/citations/11302691" target="\_blank">11302691</a>, PubMed:<a href="http://www.uniprot.org/citations/20959514" target="\_blank">20959514</a>, PubMed:<a href="http://www.uniprot.org/citations/28017329" target="\_blank">28017329</a>, PubMed:<a href="http://www.uniprot.org/citations/31522117" target="\_blank">31522117</a>). Plays a role in adipose tissue and glucose homeostasis in a sex-specific manner (By similarity). Contributes to pulmonary vascular remodeling by accelerating proliferation of pulmonary arterial smooth muscle cells (By similarity).

### Cellular Location

Mitochondrion inner membrane. Nucleus. Cytoplasm. Cell membrane

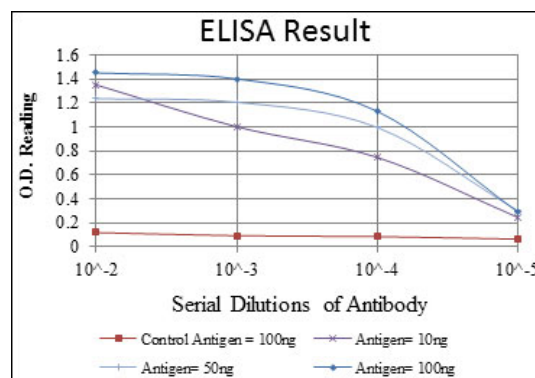
### Tissue Location

Widely expressed in different tissues.

## PHB 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](#)



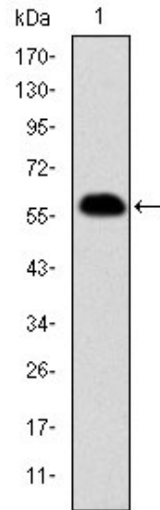


Figure 1: Western blot analysis using PHB mAb against human PHB (AA: 68-259) recombinant protein. (Expected MW is 46.7 kDa)

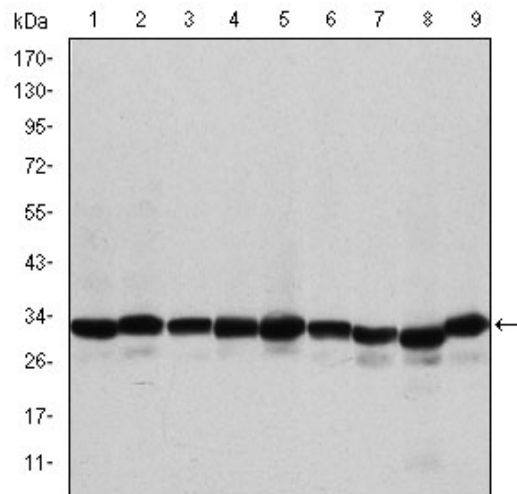


Figure 2: Western blot analysis using PHB mouse mAb against A431 (1), MCF-7 (2), Jurkat (3), HeLa (4), HepG2 (5), A549 (6), NIH/3T3 (7), Cos7 (8) and PC-12 (9) cell lysate.

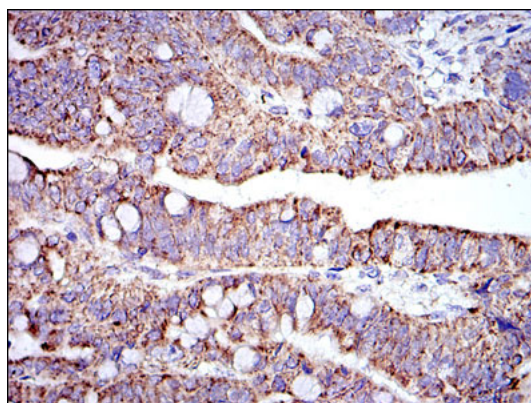


Figure 3: Immunohistochemical analysis of paraffin-embedded rectum cancer tissues using PHB mouse mAb with DAB staining.

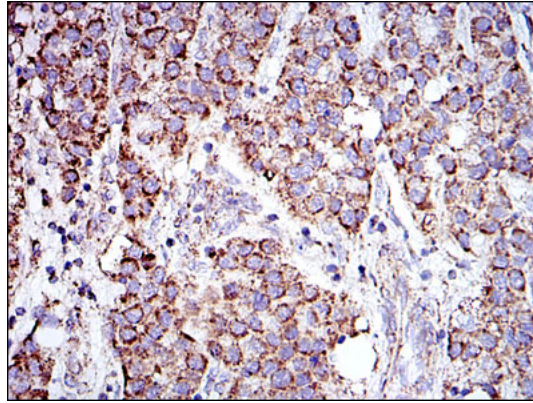


Figure 4: Immunohistochemical analysis of paraffin-embedded liver cancer tissues using PHB mouse mAb with DAB staining.

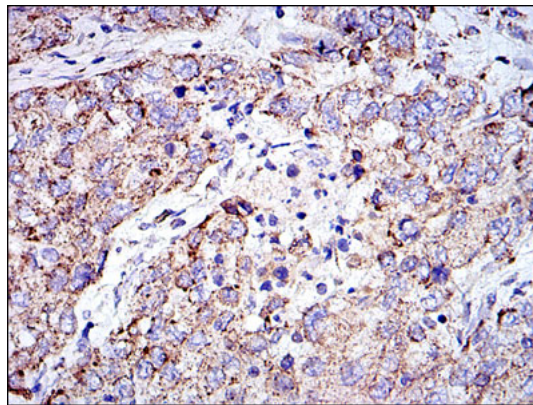


Figure 5: Immunohistochemical analysis of paraffin-embedded lung cancer tissues using PHB mouse mAb with DAB staining.

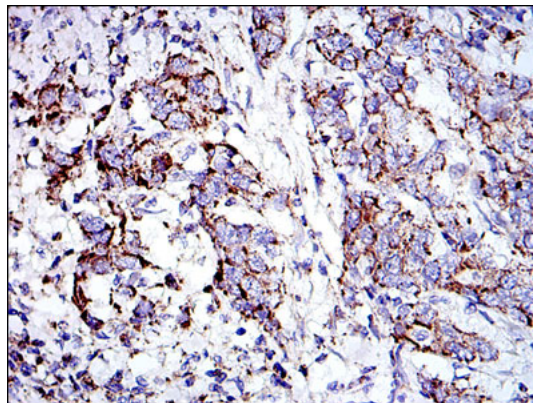


Figure 6: Immunohistochemical analysis of paraffin-embedded stomach cancer tissues using PHB mouse mAb with DAB staining.

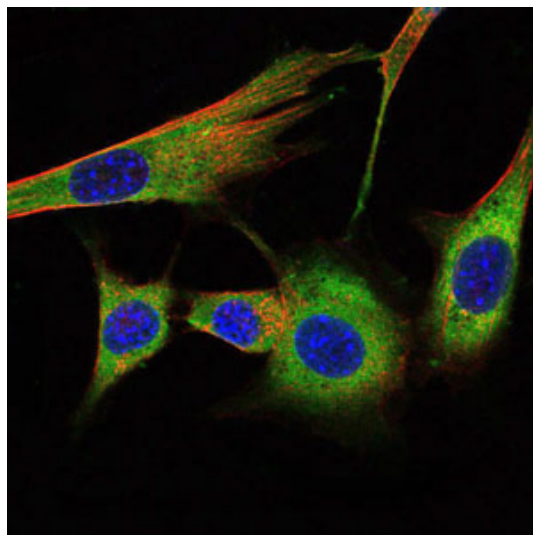


Figure 7: Immunofluorescence analysis of NIH/3T3 cells using PHB mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

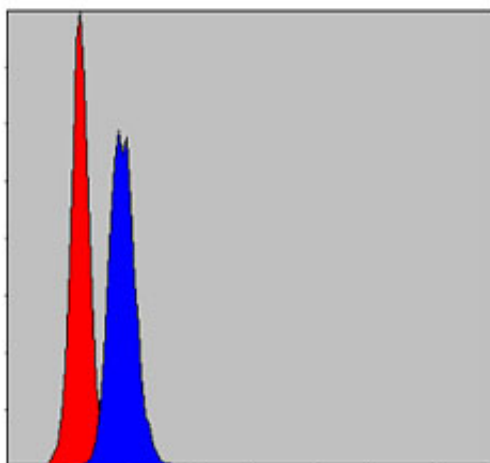


Figure 8: Flow cytometric analysis of MCF-7 cells using PHB mouse mAb (blue) and negative control (red).

### PHB Antibody - References

1. Biochem Biophys Res Commun. 2009 Dec 18;390(3):1023-8.
2. J Cell Biochem. 2009 Nov 1;108(4):926-34.