

PHB Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1614a

Specification

PHB Antibody - Product Information

| | |
|-------------------|---------------------------|
| Application | E, WB, IHC, IF, FC |
| Primary Accession | P35232 |
| 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.

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:11302691, PubMed:20959514, PubMed:28017329, PubMed:31522117). 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

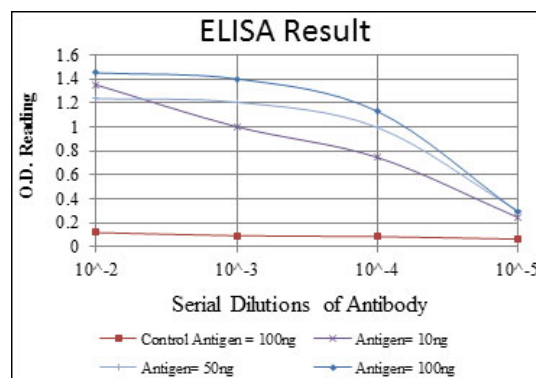
Tissue Location

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](#)



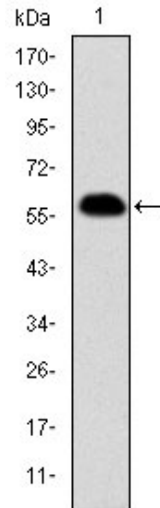


Figure 1: Western blot analysis using PHB mAb against human PHB (AA: 68-259) recombinant protein. (Expected MW is 46.7 kDa)

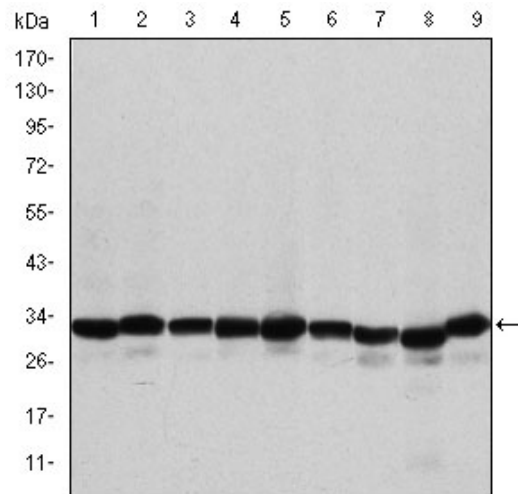


Figure 2: Western blot analysis using PHB mouse mAb against A431 (1), MCF-7 (2), Jurkat (3), HeLa (4), HepG2 (5), A549 (6), NIH/3T3 (7), Cos7 (8) and PC-12 (9) cell lysate.

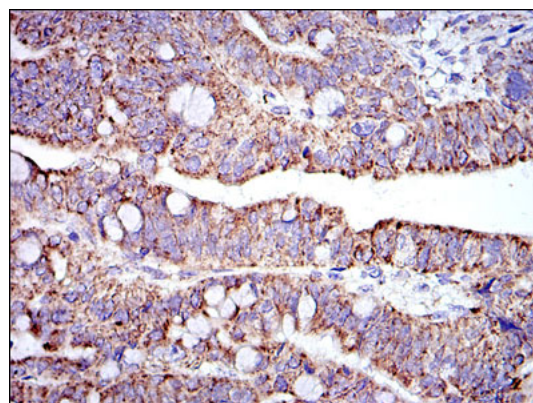


Figure 3: Immunohistochemical analysis of paraffin-embedded rectum cancer tissues using PHB mouse mAb with DAB staining.

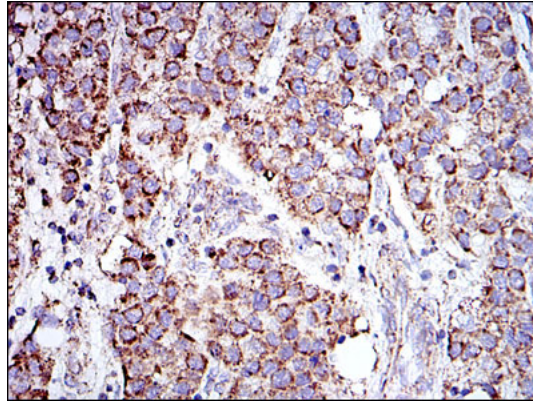


Figure 4: Immunohistochemical analysis of paraffin-embedded liver cancer tissues using PHB mouse mAb with DAB staining.

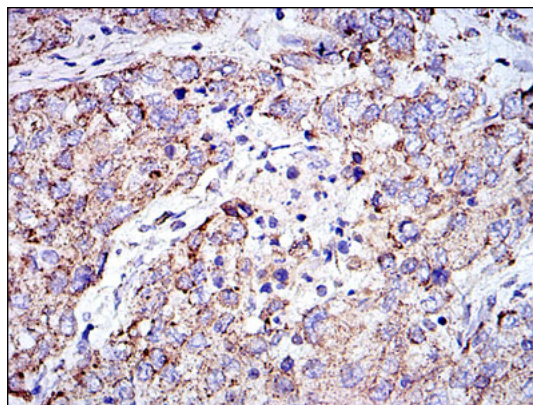


Figure 5: Immunohistochemical analysis of paraffin-embedded lung cancer tissues using PHB mouse mAb with DAB staining.

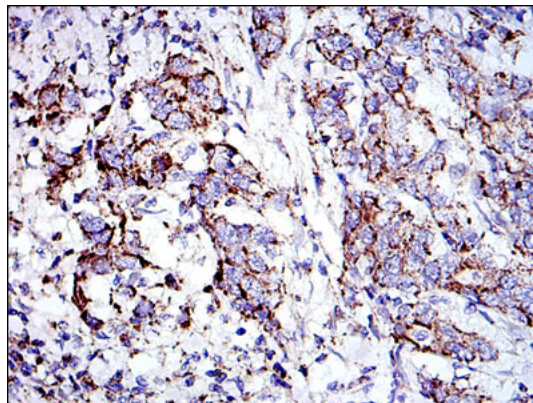


Figure 6: Immunohistochemical analysis of paraffin-embedded stomach cancer tissues using PHB mouse mAb with DAB staining.

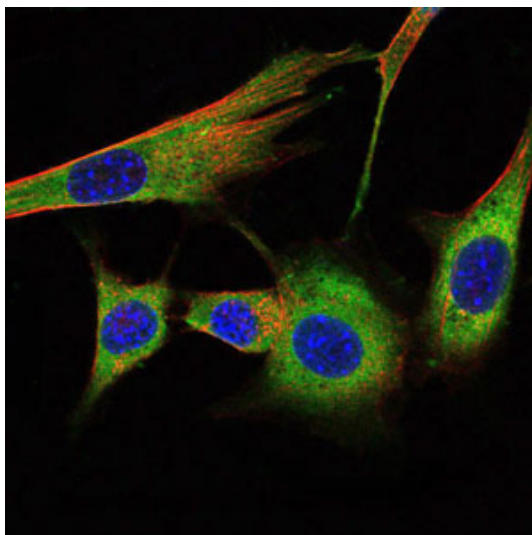


Figure 7: Immunofluorescence analysis of NIH/3T3 cells using PHB mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

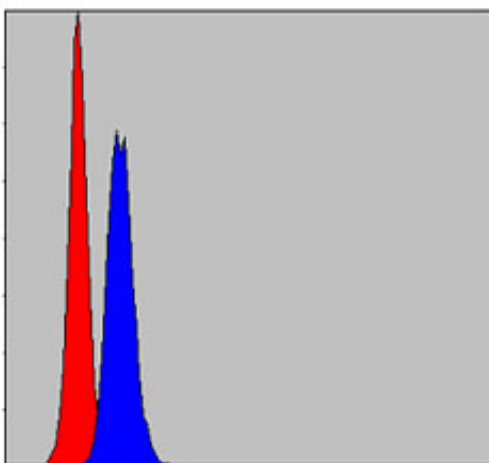


Figure 8: Flow cytometric analysis of MCF-7 cells using PHB mouse mAb (blue) and negative control (red).

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.