

**Anti-Prohibitin Antibody**  
Catalog # ABO11235**Specification**

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**Anti-Prohibitin Antibody - Product Information**

|                   |                        |
|-------------------|------------------------|
| Application       | WB, IHC, ICC           |
| Primary Accession | <a href="#">P35232</a> |
| Host              | Rabbit                 |
| Reactivity        | Human, Mouse, Rat      |
| Clonality         | Polyclonal             |
| Format            | Lyophilized            |

**Description**

Rabbit IgG polyclonal antibody for Prohibitin(PHB) detection. Tested with WB, IHC-P, ICC in Human;Mouse;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-Prohibitin Antibody - Additional Information**

**Gene ID** 5245

**Other Names**

Prohibitin, PHB

**Calculated MW**

29804 MW KDa

**Application Details**

Immunocytochemistry , 0.5-1 µg/ml, Human, Mouse, Rat<br>Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Rat, Mouse, By Heat<br>Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat<br>

**Subcellular Localization**

Mitochondrion inner membrane .

**Tissue Specificity**

Widely expressed in different tissues.

**Protein Name**

Prohibitin

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Thimerosal, 0.05mg NaN<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence at the C-terminus of human Prohibitin(240-256aa KLEAAEDIAYQLSRSRN), identical to the related rat and mouse sequences.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins

**Storage**

**At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.**

**Anti-Prohibitin 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

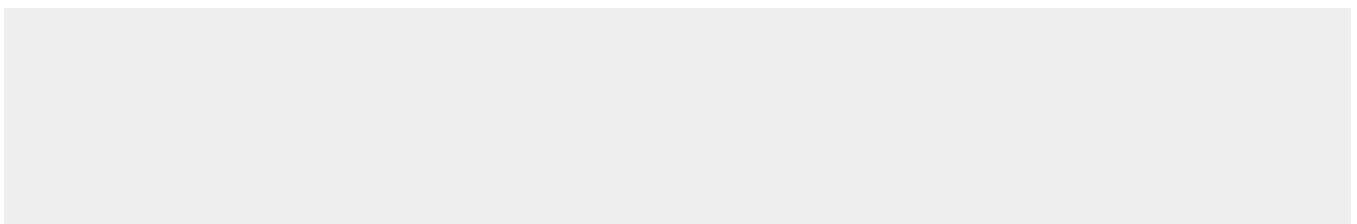
**Tissue Location**

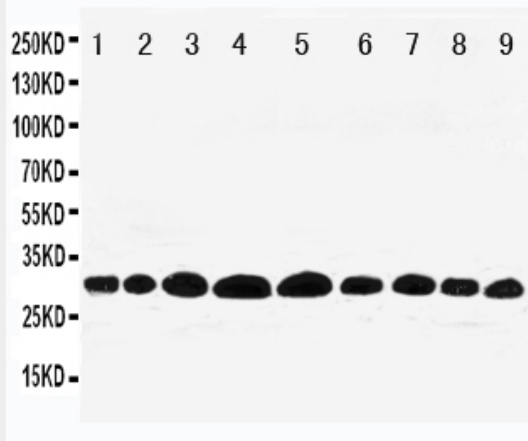
Widely expressed in different tissues.

**Anti-Prohibitin Antibody - Protocols**

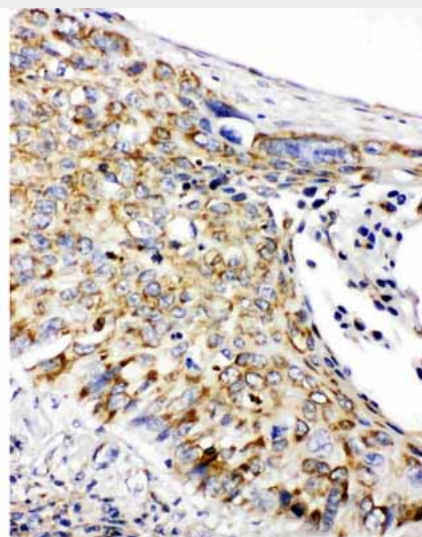
Provided below are standard protocols that you may find useful for product applications.

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

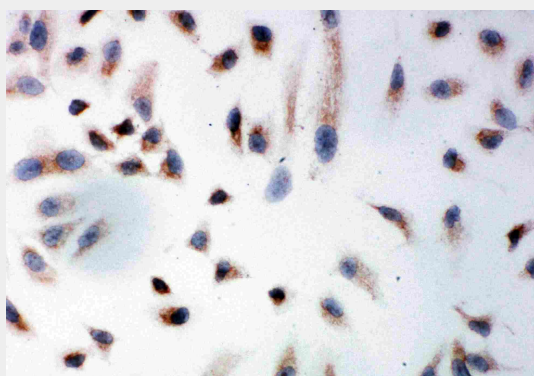
**Anti-Prohibitin Antibody - Images**



Anti-Prohibitin antibody, ABO11235, Western blotting  
 Lane 1: Rat Lung Tissue Lysate  
 Lane 2: Rat Skeletal Muscle Tissue Lysate  
 Lane 3: Rat Brain Tissue Lysate  
 Lane 4: Rat Kidney Tissue Lysate  
 Lane 5: HELA Cell Lysate  
 Lane 6: MCF-7 Cell Lysate  
 Lane 7: PC-12 Cell Lysate  
 Lane 8: A549 Cell Lysate  
 Lane 9: SMMC Cell Lysate



Anti-Prohibitin antibody, ABO11235, IHC(P) IHC(P): Human Lung Cancer Tissue



Anti-Prohibitin antibody, ABO11235, ICC: HELA Cell

### Anti-Prohibitin Antibody - Background

PHB(Prohibitin), also known as PHB1, is a protein that in humans is encoded by the PHB gene. White et al.(1991) mapped the PHB gene to chromosome 17 by analysis of human-mouse somatic

cell hybrid cell lines using a genomic fragment of human prohibitin DNA isolated from a library using the rat prohibitin cDNA clone. By in situ hybridization, they localized the gene to 17q21. Sato et al.(1992) isolated the human homolog of the rat prohibitin gene and mapped it to 17q12-q21 by in situ hybridization. Proliferation of tumor cells depends on new blood vessel formation(angiogenesis) that accompanies malignant progression. Anticancer therapies using angiogenesis inhibitors or cytotoxic agents targeted to the vasculature of tumors have been evaluated in clinical trials. Although white fat is a nonmalignant tissue, it has the capability to quickly proliferate and expand. Furthermore, it is highly vascularized. Rupnick et al.(2002) showed that nonspecific angiogenesis inhibitors can prevent the development of obesity of mice.