Prohibitin (PHB) Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	Prohibitin (PHB), Polyclonal Antibody
Full Product Name	Prohibitin (PHB) (HRP)
Product Gene Name	anti-PHB antibody
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Supplied as a liquid in PBS, pH 7.2. Labeled with Horseradish Peroxidase (HRP).
Purity/Purification	Purified by Immunoaffinity chromatography.
Specificity	Recognizes human, mouse and rat PHB. No crossreactivity with other proteins.
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, store at 4 degree C for one month. Can also be aliquoted and stored frozen at -20 degree C for long term.
Molecular Weight	29,804 Da
Chromosome Location	Chromosome: 17; NC_000017.10 (47481420..47492242, complement). Location: 17q21
OMIM	176705
3D Structure	ModBase 3D Structure for P35232
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminal of human PHB, identical to the related rat and mouse sequences.
Conjugate	HRP
Note	Preservative Free
Product Categories/Family for anti-PHB antibody	Antibodies; Membrane Proteins
Applications Tested/Suitable for anti-PHB antibody	Western Blot (WB), Immunohistochemistry (IHC) Paraffin, Immunocytochemistry (ICC)
Application Notes for anti-PHB antibody	Applications are based on unconjugated antibody.
Related Product Information for anti-PHB antibody	MBS6404604 is an antibody targeting PHB. Also known as Prohibitin (PHB) (HRP). Reactive in Human, Mouse, Rat. Host: Rabbit.
Product References and Citations for anti-PHB antibody	1. Kolonin, M. G., Saha, P. K., Chan, L., Pasqualini, R., Arap, W.Reversal of obesity by targeted ablation of adipose tissue.Nature Med. 10: 625-632, 2004. 2. Sato, T., Sakamoto, T., Takita, K.-I., Saito, H., Okui, K., Nakamura, Y. The human prohibitin (PHB) gene family and its somatic mutations in human tumors. Genomics 17: 762-764, 1993.
Other Notes	Small volumes of anti-PHB antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PHB. It may not necessarily be applicable to this product.

NCBI GI #	246483
NCBI GeneID	5245
NCBI Accession #	AAB21614.1
UniProt Primary Accession #	P35232
UniProt Secondary Accession #	Q4VBQ0
UniProt Related Accession #	P35232
NCBI Official Full Name	prohibitin
NCBI Official Synonym Full Names	prohibitin
NCBI Official Symbol	PHB
NCBI Official Synonym Symbols	PHB1
UniProt Protein Name	Prohibitin
Protein Family	Prohibitin
UniProt Gene Name	PHB
UniProt Entry Name	PHB_HUMAN
NCBI Protein Information	prohibitin
NCBI Summary for PHB	This gene is evolutionarily conserved, and its product is proposed to play a role in human cellular senescence and tumor suppression. Antiproliferative activity is reported to be localized to the 3' UTR, which is proposed to function as a trans-acting regulatory RNA. Several pseudogenes of this gene have been identified. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2013]

UniProt Comments for PHB	PHB: a pleiotropic membrane protein that suppresses cell proliferation, apoptosis and senescence. It plays a role both in maintaining mitochondrial integrity and in cell cycle regulation. Expression increases approximately 3-fold upon entry into G1 phase compared with other phases of the cell cycle. It helps prevent ROS-induced senescence and its expression decreases heterogeneously during cellular aging. Helps maintain the angiogenic capacity of endothelial cells. Up-regulated during activation of primary human T cells via CD3/CD28 pathways. Present in multiple cellular compartments. Large assemblies of PHB and PHB2 localize in the inner membrane of mitochondria. Acts as a mitochondrial chaperone protein, regulates mitochondrial morphogenesis, and helps regulate the organization of mitochondrial DNA. Reported to target lipid rafts. In the nucleus, it has been reported to interact with various transcription factors, modulating their activity. A potential tumor suppressor that functions as a potent transcriptional corepressor for estrogen receptor alpha. It is downregulated by androgens, and represses androgen receptor activity. Co-localizes with Rb in the nucleus and recruits N-CoR and HDAC1 for transcriptional repression. In vivo promoter occupancy studies have suggested that the PHB gene is a direct target of c-Myc. May bind to and enhance the transcriptional activity of p53. Both Phb and Phb2 are present in the circulation and can be internalized by cultured cells. Overexpressed in endometrioid ovarian adenocarcinoma and papillary serous ovarian carcinoma. Mutated in sporadic breast cancer. Protein type: Transcription, coactivator/corepressor; Apoptosis; Oncoprotein; Mitochondrial; Chaperone; Nuclear receptor co-regulator; Motility/polarity/chemotaxis; Cell cycle regulation Chromosomal Location of Human Ortholog: 17q21 Cellular Component: nucleoplasm; membrane; mitochondrion; integral to plasma membrane; mitochondrial inner membrane; cytoplasm; nucleus Molecular Function: protein binding; enzyme binding; histone deacetylase binding Biological Process: transcription from RNA polymerase II promoter; osteoblast differentiation; regulation of apoptosis; negative regulation of cell proliferation; progesterone receptor signaling pathway; regulation of transcription, DNA-dependent; positive regulation of transcription, DNA-dependent; histone deacetylation; negative regulation of cell growth; negative regulation of transcription from RNA polymerase II promoter; signal transduction; negative regulation of transcription, DNA-dependent Disease: Breast Cancer
Research Articles on PHB	**1.** PHBs are localized on the human platelet membrane and are involved in PAR1-mediated platelet aggregation.
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