Prohibitin (PHB) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Prohibitin (PHB), ELISA Kit
Full Product Name	Human Prohibitin ELISA Kit
Product Gene Name	PHB elisa kit
Species Reactivity	Human
Assay Type	Sandwich
Samples	Serum, Plasma and Tissue Homogenate
Detection Range	0.5 ng/ml - 16 ng/ml.
Sensitivity	0.1 ng/ml.
Specificity	No significant cross-reactivity or interference between this analyte and analogues is observed.
Preparation and Storage	Store all reagents at 2-8 degree C
Inter-assay Precision	Inter-assay CV (%) is less than 15%. [CV(%) = SD/mean ×100].
Intra-assay Precision	Intra-assay CV (%) is less than 15%.
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
Related Product Information for PHB elisa kit	**Background:** This Quantitative Sandwich ELISA kit is only for in vitro research use only! This kit is intended to be used for determination the level of PHB (hereafter termed this analyte) in undiluted original Human serum, plasma and tissue homogenate samples.
Other Notes	Small volumes of PHB elisa kit 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.
Searchable Terms for PHB purchase	MBS034507 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Prohibitin (PHB) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing PHB. The ELISA analytical biochemical technique of the MBS034507 kit is based on PHB antibody-PHB antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect PHB antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, PHB. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).

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: Chaperone; Transcription, coactivator/corepressor; Mitochondrial; Motility/polarity/chemotaxis; Apoptosis; Oncoprotein; Nuclear receptor co-regulator; Cell cycle regulation Chromosomal Location of Human Ortholog: 17q21 Cellular Component: nucleoplasm; mitochondrion; membrane; integral to plasma membrane; mitochondrial inner membrane; cytoplasm; nucleus Molecular Function: protein binding; enzyme binding; histone deacetylase binding Biological Process: osteoblast differentiation; transcription from RNA polymerase II promoter; 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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