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PHB Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1614a

Product Information

Application	WB, IHC, FC, ICC, E
Primary Accession	P35232
Reactivity	Human, Mouse, Rat, Monkey
Host	Mouse
Clonality	Monoclonal
Clone Names	5H7
Isotype	IgG1
Calculated MW	29804
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.

Additional Information

Gene ID	5245
Other Names	Prohibitin, PHB
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 FC~~1:10~50 ICC~~N/A E~~1/10000
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.

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.

References

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

Images

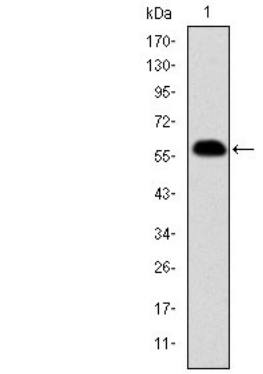


Figure 1: Western blot analysis using PHB mAb against human PHB (AA: 68-259) recombinant protein. (Expected MW is 46.7 kDa)

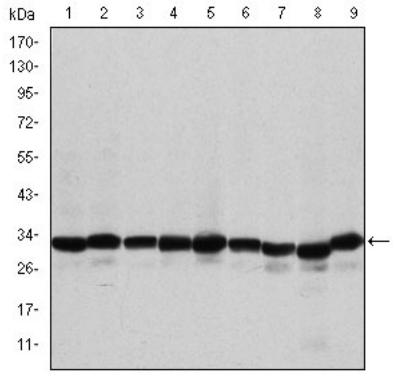


Figure 2: Western blot analysis using PHB mouse mAb against A431 (1), MCF-7 (2), Jurkat (3), Hela (4), HepG2 (5), A549 (6), NIH/3T3 (7), Cos7 (8) and PC-12 (9) cell lysate.

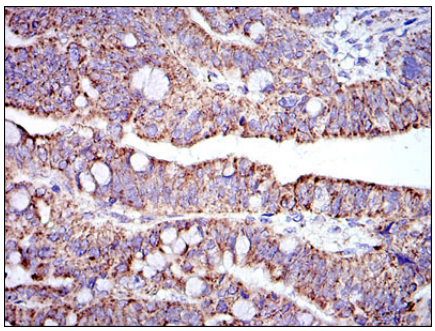
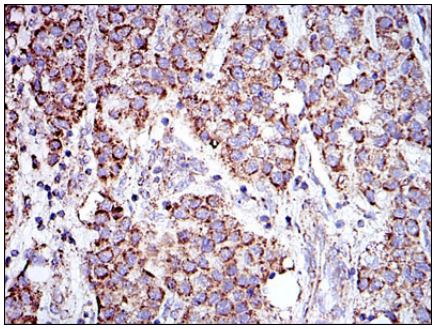


Figure 3: Immunohistochemical analysis of paraffin-embedded rectum cancer tissues using PHB mouse mAb with DAB staining.

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



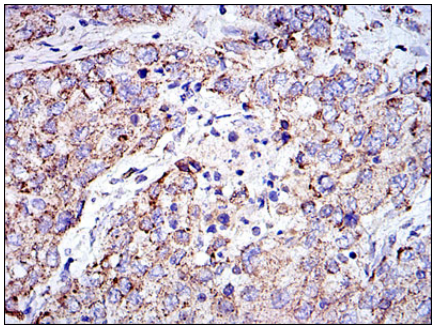


Figure 5: Immunohistochemical analysis of paraffin-embedded lung cancer tissues using PHB mouse mAb with DAB staining.

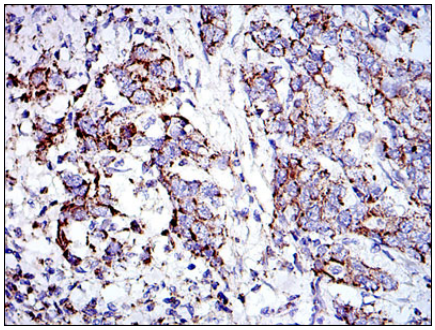


Figure 6: Immunohistochemical analysis of paraffin-embedded stomach cancer tissues using PHB mouse mAb with DAB staining.