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GPNMB Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1823a

Product Information

Application	WB, IHC, E
Primary Accession	Q14956
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	7C10E5
Isotype	IgG1
Calculated MW	63923
Description	The protein encoded by this gene is a type I transmembrane glycoprotein which shows homology to the pMEL17 precursor, a melanocyte-specific protein. GPNMB shows expression in the lowly metastatic human melanoma cell lines and xenografts but does not show expression in the highly metastatic cell lines. GPNMB may be involved in growth delay and reduction of metastatic potential. Two transcript variants encoding different isoforms have been found for this gene.
Immunogen	Purified recombinant fragment of human GPNMB (AA: 31-260) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide

Additional Information

Gene ID	10457
Other Names	Transmembrane glycoprotein NMB, Transmembrane glycoprotein HGFIN, GPNMB, HGFIN, NMB
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 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	GPNMB Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GPNMB

Synonyms	HGFIN {ECO:0000303|PubMed:12609765}, NMB
Function	Could be a melanogenic enzyme.
Cellular Location	Cell membrane; Single-pass type I membrane protein Melanosome membrane; Single-pass type I membrane protein. Early endosome membrane; Single-pass type I membrane protein. Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV
Tissue Location	Widely expressed, but very low expression, if any, in the brain (PubMed:12609765, PubMed:16609006). Expressed in the epidermis with higher levels in melanocytes compared with keratinocytes and Langerhans cells (at protein level) (PubMed:29336782). Expressed in peripheral blood, but not bone marrow mononuclear cells (PubMed:12609765). Expressed in tissue macrophages, including liver Kuppfer cells and lung alveolar macrophages, in podocytes and in some cells of the ciliary body of the eye (at protein level) (PubMed:16489096). May be overexpressed in various cancers, including melanoma and glioblastoma multiforme (PubMed:16489096, PubMed:16609006, PubMed:7814155).

Background

The protein encoded by this gene is a type I transmembrane glycoprotein which shows homology to the pMEL17 precursor, a melanocyte-specific protein. GPNMB shows expression in the lowly metastatic human melanoma cell lines and xenografts but does not show expression in the highly metastatic cell lines. GPNMB may be involved in growth delay and reduction of metastatic potential. Two transcript variants encoding different isoforms have been found for this gene. ;

References

1. Prostate. 2012 Sep 15;72(13):1431-42. 2. Melanoma Res. 2010 Jun;20(3):184-90.

Images

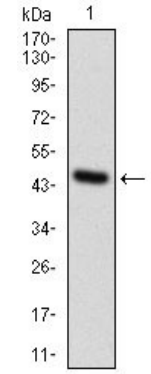


Figure 1: Western blot analysis using GPNMB mAb against human GPNMB recombinant protein. (Expected MW is 47.0 kDa)

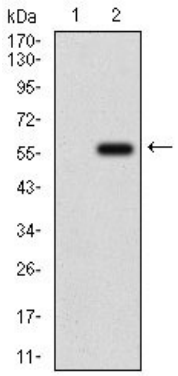


Figure 2: Western blot analysis using GPNMB mAb against HEK293 (1) and GPNMB (AA: 31-260)-hIgGFc transfected HEK293 (2) cell lysate.

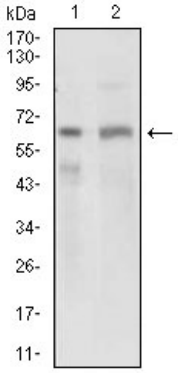


Figure 3: Western blot analysis using GPNMB mouse mAb against PANC1 (1) and PC-3 (2) cell lysate.

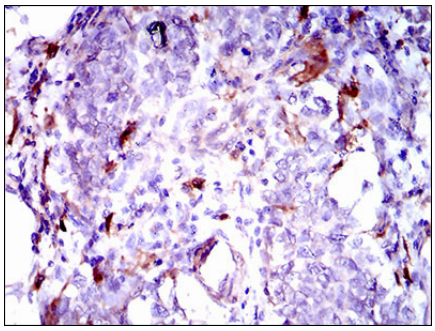


Figure 4: Immunohistochemical analysis of paraffin-embedded breast cancer tissues using GPNMB mouse mAb with DAB staining.

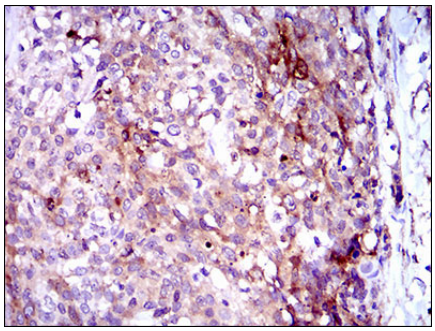


Figure 5: Immunohistochemical analysis of paraffin-embedded esophagus cancer tissues using GPNMB mouse mAb with DAB staining.

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