

GPNMB Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1823a**Specification****GPNMB Antibody - Product Information**

Application	E, WB, IHC
Primary Accession	Q14956
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	64kDa KDa

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

GPNMB Antibody - Additional Information

Gene ID 10457

Other Names

Transmembrane glycoprotein NMB, Transmembrane glycoprotein HGFIN, GPNMB, HGFIN, NMB

Dilution

E~~1/10000

WB~~1/500 - 1/2000

IHC~~1/200 - 1/1000

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.

GPNMB Antibody - 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

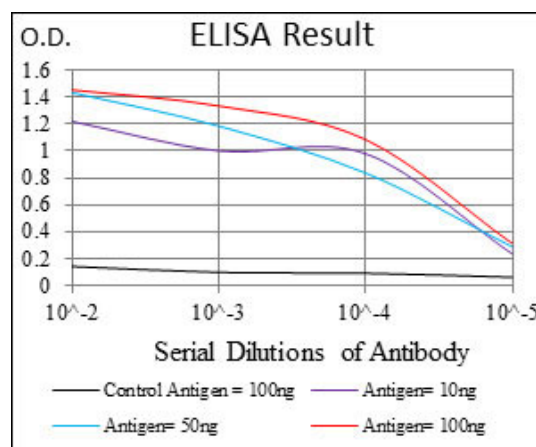
Tissue Location

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:7814155, PubMed:16489096, PubMed:16609006).

GPNMB 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](#)



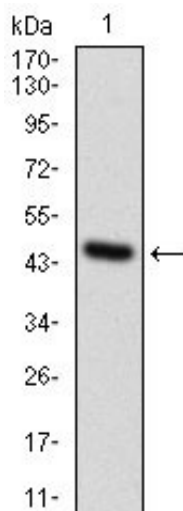


Figure 1: Western blot analysis using GPNMB mAb against human GPNMB recombinant protein. (Expected MW is 47.0 kDa)

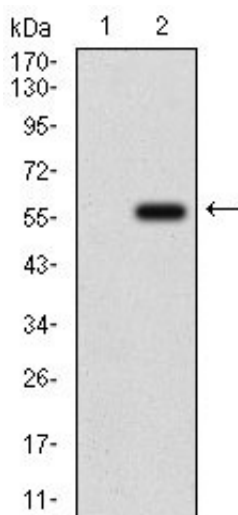


Figure 2: Western blot analysis using GPNMB mAb against HEK293 (1) and GPNMB (AA: 31-260)-hlgGfc transfected HEK293 (2) cell lysate.

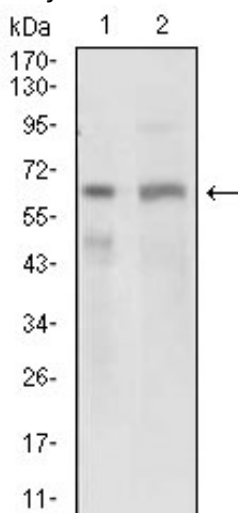


Figure 3: Western blot analysis using GPNMB mouse mAb against PANC1 (1) and PC-3 (2) cell lysate.

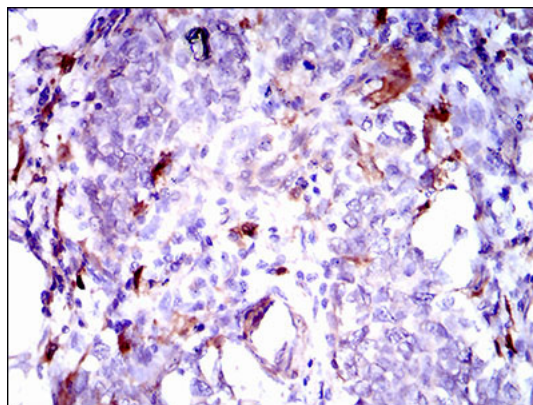


Figure 4: Immunohistochemical analysis of paraffin-embedded breast cancer tissues using GPNMB mouse mAb with DAB staining.

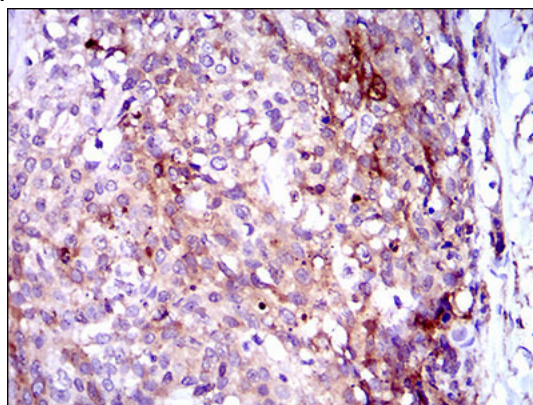


Figure 5: Immunohistochemical analysis of paraffin-embedded esophagus cancer tissues using GPNMB mouse mAb with DAB staining.

GPNMB Antibody - 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. ;

GPNMB Antibody - References

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