Osteoactivin/GPNMB (GPNMB) Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	Osteoactivin/GPNMB, Polyclonal Antibody
Full Product Name	Anti-Osteoactivin/GPNMB Antibody, Rabbit Polyclonal
Product Gene Name	anti-GPNMB antibody
Product Synonym Names	GPNMB/Osteoactivin Antibody, Rabbit PAb, Antigen Affinity Purified; glycoprotein (transmembrane) nmb; Anti-HGFIN Antibody; Anti-NMB Antibody; Anti-Osteoactivin Antibody
Clonality	Polyclonal
Isotype	Rabbit IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Liquid; 0.2um filtered solution in PBS
Purity/Purification	Protein A & Antigen Affinity
Specificity	Human GPNMB/Osteoactivin
Preparation and Storage	This antibody can be stored at 2-8 degree C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 degree C to -80 degree C. Preservative-Free. Avoid repeated freeze-thaw cycles.
Molecular Weight	62,643 Da
OMIM	604368
3D Structure	ModBase 3D Structure for Q14956
Immunogen	Recombinant Human GPNMB/Osteoactivin Protein
Conjugation	Unconjugated
Preparation	Produced in rabbits immunized with purified, recombinant Human GPNMB/Osteoactivin (rh GPNMB/Osteoactivin). GPNMB/Osteoactivin specific IgG was purified by Human GPNMB/Osteoactivin affinity chromatography.
Applications Tested/Suitable for anti-GPNMB antibody	ELISA (EIA)
Application Notes for anti-GPNMB antibody	ELISA: 1:5000-1:10,000
Related Product Information for anti-GPNMB antibody	GPNMB belongs to the PMEL/NMB family, also known as Osteoactivin and Hematopoietic growth factor-inducible neurokinin 1 (HGFIN), is a transmembrane glycoprotein that is expressed in numerous cells, including osteoclasts, macrophages, dendritic cells, and tumor cells. It is suggested to influence osteoblast maturation, cell adhesion, and migration. GPNMB protein acts as a downstream mediator of BMP-2 effects on osteoblast differentiation and function. GPNMB participates in bone mineralization and functions as a negative regulator of inflammation in macrophages. Osteoactivin is expressed at high levels in normal and inflammatory liver macrophages suggesting a significant role in acute liver injury. The early-phase upregulation of Osteoactivin expression in the tubular epithelium in response to renal injury might play a role in triggering renal interstitial fibrosis via activation of matrix metalloproteinase expression and collagen remodeling in rats. Osteoactivin is a protein that is expressed in aggressive human breast cancers and is capable of promoting breast cancer metastasis to bone.
Product References and Citations for anti-GPNMB antibody	Pahl MV. et al., 2010, Clin J Am Soc Nephrol. 5(1): 56-61. Abdelmagid SM. et al., 2008, Exp Cell Res. 314(13): 2334-51. Haralanova-Ilieva B. et al., 2005, J Hepatol. 242(4): 565-72. Abdelmagid SM. et al., 2007, J Cell Physiol. 210(1): 26-37. Furochi H. et al., 2007, J Med Invest. 54(3-4): 248-54.

Other Notes	Small volumes of anti-GPNMB 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.
Searchable Terms for GPNMB purchase	MBS8105256 is an antibody targeting GPNMB. Also known as Anti-Osteoactivin/GPNMB Antibody, Rabbit Polyclonal. Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

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

NCBI GI #	52694752
NCBI GeneID	10457
NCBI Accession #	NP_001005340.1
UniProt Primary Accession #	Q14956
UniProt Secondary Accession #	Q6UVX1; Q8N1A1; A4D155
UniProt Related Accession #	Q14956
GenBank Nucleotide #	NM_001005340.1
NCBI Official Full Name	transmembrane glycoprotein NMB isoform a
NCBI Official Synonym Full Names	glycoprotein (transmembrane) nmb
NCBI Official Symbol	GPNMB
NCBI Official Synonym Symbols	NMB; HGFIN
UniProt Protein Name	Transmembrane glycoprotein NMB
UniProt Synonym Protein Names	Transmembrane glycoprotein HGFIN
Protein Family	Transmembrane glycoprotein
UniProt Gene Name	GPNMB
UniProt Synonym Gene Names	HGFIN; NMB
UniProt Entry Name	GPNMB_HUMAN
NCBI Protein Information	transmembrane glycoprotein NMB; glycoprotein nmb-like protein; osteoactivin; transmembrane glycoprotein HGFIN
NCBI Summary for GPNMB	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. [provided by RefSeq, Jul 2008]
UniProt Comments for GPNMB	GPNMB: Could be a melanogenic enzyme. Belongs to the PMEL/NMB family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Membrane protein, integral Chromosomal Location of Human Ortholog: 7p15 Cellular Component: integral to plasma membrane; integral to membrane; melanosome Molecular Function: heparin binding; integrin binding Biological Process: osteoblast differentiation; negative regulation of cell proliferation; cell adhesion; bone mineralization
Research Articles on GPNMB	**1.** DC-HIL+ CD14+ HLA-DR no/low cells are a potential blood marker and therapeutic target for melanoma

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