

## Human GPNMB,Osteoactivin ELISA Kit

Catalog No: #EK5557

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## Description

Product Name	Human GPNMB,Osteoactivin ELISA Kit
Specificity	Human
Crossing Reactivity	There is no detectable cross-reactivity with other relevant proteins.
Immunogen Type	NSO,A22-P486
Other Names	Transmembrane glycoprotein NMB; Transmembrane glycoprotein HGFIN; GPNMB; HGFIN, NMB; UNQ1725,PRO9925;
Accession No.	Q14956
Uniprot	Q14956
GeneID	10457;
Cell Localization	Cell membrane; Identified by mass spectrometry in melanosome fractions from stage I to stage IV. Detected at the cell surface in different types of cancers cells, including glioblastoma multiforme cells and most melanoma cell lines.

## Application Details

sensitivity:10pg ml Detect Range:156pg ml-10 000pg ml sample\_type:cell culture supernates cell lysates tissue homogenates serum and plasma (heparin EDTA).capture\_antibody:monoclonal antibody from mouse detection\_antibody:polyclonal antibody from goat gene\_name:GPNMB protein\_name:Transmembrane glycoprotein NMB gene\_full\_name:Transmembrane glycoprotein NMB tissue\_specificity: Up-regulated in various cancer cells including in glioblastoma multiforme. Expressed in many melanoma cells as well as in tissue macrophages including liver Kupffer cells and lung alveolar macrophages in podocytes and in some cells of the ciliary body of the eye (at protein level). Hardly detectable in healthy brain..sequence\_similarities:Belongs to the PMEL NMB family. tmb\_incubation:20-25min research\_category:immunology|innate immunity|macrophage / inflamm.|cancer|tumor immunology|tumor-associated antigens

## Product Description

Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human GPNMB,Osteoactivin

## Background

protein\_function: Could be a melanogenic enzyme..Transmembrane glycoprotein NMB is a protein that in humans is encoded by the GPNMB gene. In osteoblast progenitor cells, GPNMB works as a positive regulator of osteoblast differentiation during later stages of matrix maturation and mineralization that is mediated at least in part by BMP-2 in a SMAD1 dependent manner to promote osteoblast differentiation. GPNMB can enhance the repairing process in bone fracture, demonstrated by its high expression during chondrogenesis(soft callus) and osteogenesis(hard callus) compared to the intact femurs that is why Osteoactivin(OA) could be a novel therapeutic agent used to treat generalized osteoporosis or localized osteopenia during fracture repair by stimulating bone growth and regeneration. Similarly, GPNMB expression increases during osteoclast differentiation and it is functionally implicated in this process, possibly by promoting the fusion of osteoclast progenitor cells.

Note: This product is for in vitro research use only