

Human GPNMB/Osteoactivin ELISA Kit | GPNMB elisa kit

Human GPNMB/Osteoactivin PicoKine ELISA Kit

CATALOG #
AAA45950

REACTIVITY
Human

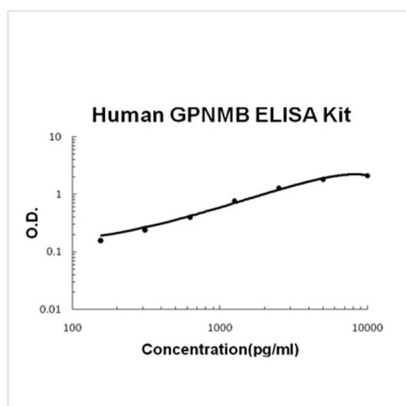
PRODUCT SYNONYMS

GPNMB/Osteoactivin; Human GPNMB/Osteoactivin PicoKine ELISA Kit; Transmembrane glycoprotein NMB; glycoprotein (transmembrane) nmb; Glycoprotein (transmembrane) nmb; Glycoprotein nmb; Glycoprotein nmb like protein; Gpnmb; GPNMB_HUMAN; HGFIN; NMB; Osteoactivin; Transmembrane glycoprotein; Transmembrane glycoprotein HGFIN; GPNMB elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Human
Specificity	Natural and recombinant human GPNMB
Sequence Length	572
Samples	Cell culture supernates, serum and plasma (heparin, EDTA)
Assay Type	Sandwich
Detection Range	156pg/ml-10,000pg/ml
Sensitivity	< 10pg/ml
Intra-assay Precision	Intra-Assay Precision (Precision within an assay) Three samples of known concentration were tested on one plate to assess intra-assay precision.
Inter-assay Precision	Inter-Assay Precision (Precision between assays) Three samples of known concentration were tested in separate assays to assess inter-assay precision.
Preparation and Storage	Store at 4 degree C for 6 months, at -20 degree C for 12 months. Avoid multiple freeze-thaw cycles (Shipped with wet ice.)

IMAGES



Standard Curve (Sample)

Human GPNMB/Osteoactivin PicoKine ELISA Kit standard curve

ADDITIONAL INFORMATION

Related Product Information for GPNMB elisa kit	Principle of the assay: human GPNMB ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for GPNMB has been precoated onto 96-well plates. Standards(NSO, A22-P486) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for GPNMB is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the human GPNMB amount of sample captured in plate. Background: 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.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	61252504
NCBI GeneID	10457
UniProt Accession #	Q14956; Q6UVX1; Q8N1A1; A4D155
Molecular Weight	62,643 Da
NCBI Official Full Name	Transmembrane glycoprotein NMB
NCBI Official Synonym Full Names	glycoprotein (transmembrane) nmb
NCBI Official Symbol	GPNMB
NCBI Official Synonym Symbols	NMB; HGFIN
NCBI Protein Information	transmembrane glycoprotein NMB; osteoactivin; glycoprotein nmb-like protein; transmembrane glycoprotein HGFIN
UniProt Protein Name	Transmembrane glycoprotein NMB
UniProt Gene Name	GPNMB
UniProt Synonym Gene Names	HGFIN; NMB
UniProt Entry Name	GPNMB_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.