

Datasheet for KOA0737**Human GPNMB - Osteoactivin ELISA Kit****Overview**

Description:	Human GPNMB/Osteoactivin AccuSignal ELISA Kit - KOA0737
Item No.:	KOA0737
Size:	1 Kit
Applications:	ELISA
Reactivity:	Human
Range:	156 pg/ml - 10,000 pg/ml

Product Details

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.
Synonyms:	Gpnmb, GPNMB_HUMAN, Transmembrane glycoprotein HGFIN, Transmembrane glycoprotein NMB
Detection Kit Type:	ELISA Kit
Detection Range:	156 pg/ml - 10,000 pg/ml
Sensitivity:	<10 pg/ml

Target Details

Gene Name:	GPNMB
Reactivity:	Human
Immunogen:	Expression system for standard: NSO; Immunogen sequence: A22-P486

Purity/Specificity: Natural and recombinant human GPNMB. There is no detectable cross-reactivity with other relevant proteins.

Relevant Links:

- [UniProtKB - Q14956](#)
- [NCBI - NP_001005340.1](#)
- [GeneID - 10457](#)
- [KOA0737 Protocol](#)

Application Details

Tested Applications: ELISA

Application Note: Useful in Sandwich ELISA for Quantitative Detection of Antigen. Aliquot 0.1ml per well of the 10,000pg/ml, 5000pg/ml, 2500pg/ml, 1250pg/ml, 625pg/ml, 312pg/ml, 156pg/ml human GPNMB standard solutions into the precoated 96-well plate. Add 0.1ml of the sample diluent buffer into the control well (Zero well). Add 0.1ml of each properly diluted sample of human cell culture supernates, serum or plasma (heparin, EDTA) to each empty well. It is recommended that each human GPNMB standard solution and each sample be measured in duplicate.

Assay Dilutions: All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.

Formulation

Anticoagulant: Heparin Sodium

Shipping & Handling

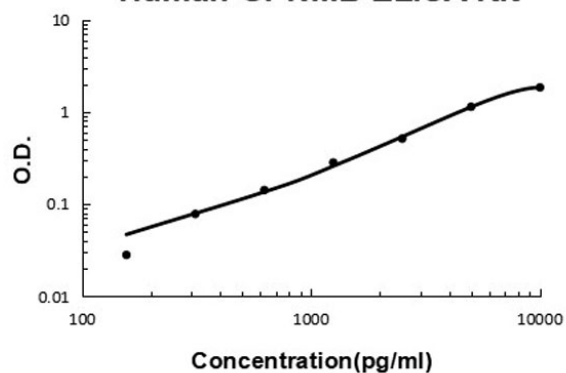
Shipping Condition: Wet Ice

Storage Condition: Store vials at 4°C prior to opening. Centrifuge product if not completely clear after standing at room temperature. This product is stable for 6 months at 4°C as an undiluted liquid. Dilute only prior to immediate use. For extended storage freeze at -20°C or below for 12 months. Avoid cycles of freezing and thawing.

Expiration: See kit insert for complete instructions.

Images

Human GPNMB ELISA Kit



ELISA

Human GPNMB/Osteoactivin ELISA Kit standard curve.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.