

## Recombinant Human GPNMB Protein(His Tag)

Catalog Number: PDMH100258

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

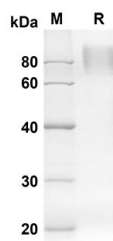
### Description

Species	Human
Source	Mammalian-derived Human GPNMB protein Lys23-Asn486, with an C-terminal His
Calculated MW	50.9 kDa
Observed MW	80-100 kDa
Accession	Q14956-2
Bio-activity	Not validated for activity

### Properties

Purity	> 90% as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU/mg of the protein as determined by the LAL method
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

### Data



SDS-PAGE analysis of Human GPNMB proteins, 2 µg/lane of Recombinant Human GPNMB proteins was resolved with an SDS-PAGE under reducing conditions, showing bands at 50.9 KD

### Background

### For Research Use Only

GNMB 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. GNMB protein acts as a downstream mediator of BMP-2 effects on osteoblast differentiation and function. GNMB 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.