

# Recombinant Human Osteoactivin/GPNMB Protein

Catalog No.: RP01390 **Recombinant**

## Sequence Information

Species	Gene ID	Swiss Prot
Human	10457	Q14956-2

### Tags

C-His

### Synonyms

GPNMB;HGFIN;NMB

## Product Information

Source	Purification
HEK293 cells	> 95% by SDS-PAGE.

Calculated MW	Observed MW
54.02 kDa	70-100 kDa

### Endotoxin

<0.1EU/μg

### Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

### Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Contact

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## Background

Transmembrane glycoprotein NMB (GPNMB) is also known as Transmembrane glycoprotein HGFIN, DC-HIL and Osteoactivin (OA), which belongs to the PMEL/NMB family. GPNMB contains one PKD domain. 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.

## Basic Information

### Description

Recombinant Human Osteoactivin/GPNMB Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Met1-Pro474) of human Osteoactivin/GPNMB (Accession #NP\_002501.1) fused with a 6×His tag at the C-terminus.

### Bio-Activity

Measured by its binding ability in a functional ELISA. Immobilized Human GPNMB Protein at 1 μg/mL (100 μL/well) can bind GPNMB Rabbit pAb with a linear range of 0.976-116.5 ng/mL.

### Storage

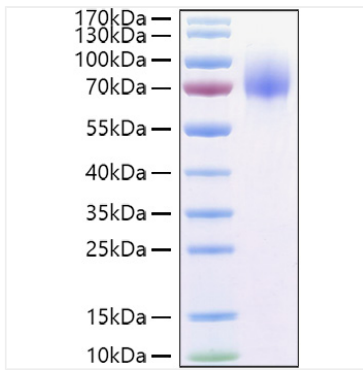
Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

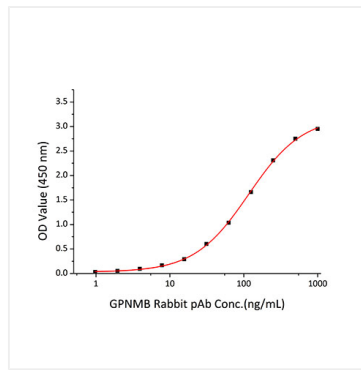
Avoid repeated freeze/thaw cycles.

## Validation Data

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Recombinant Human Osteoactivin/GPNMB Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 70-100kDa.



Immobilized recombinant Human GPNMB Protein at 1 $\mu$ g/mL (100  $\mu$ L/well) can bind GPNMB Rabbit pAb with a linear range of 0.976-116.5ng/mL.