

## Recombinant Mouse GPNMB/Osteoactivin Protein (His Tag)

**Catalog No.** PKSM040661

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

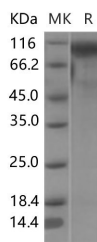
### Description

<b>Synonyms</b>	DC-HIL;Dchil;ipd
<b>Species</b>	Mouse
<b>Expression Host</b>	HEK293 Cells
<b>Sequence</b>	Met1-Asn502
<b>Accession</b>	Q99P91
<b>Calculated Molecular Weight</b>	54.9 kDa
<b>Observed molecular weight</b>	96 kDa
<b>Tag</b>	C-His
<b>Bioactivity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 90 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	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.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



> 90 % as determined by reducing SDS-PAGE.

### Background

GPNMB 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,

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macrophages, dendritic cells, and tumor cells. It is suggested to influence osteoblast maturation, cell adhesion and migration. 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 as a protein that is expressed in aggressive human breast cancers and is capable of promoting breast cancer metastasis to bone.