



Recombinant Protein Technical Manual

Recombinant Human GPNMB Protein (aa 1-474, His Tag)

RPES2095

Product Data:

Product SKU: RPES2095

Size: 50µg

Species: Human

Expression host: HEK293 Cells

Uniprot: Q14956-2

Protein Information:

Molecular Mass: 52.1 kDa

AP Molecular Mass:

Tag: C-His

Bio-activity:

Purity: > 98 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg of the protein as determined by the LAL method.

Storage: 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 sterile PBS, pH 7.4

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: Transmembrane Glycoprotein NMB; Transmembrane Glycoprotein HGFIN; GPNMB; HGFIN;NMB;Osteoactivin

Immunogen Information:

Sequence: Met 1-Pro 474

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, 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.