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

Catalog Number: PKSH031159

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

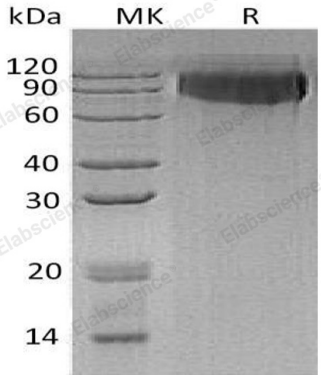
Description

Species	Human
Source	HEK293 Cells-derived Human GPNMB protein Met 1-Pro 474, with an C-terminal His
Calculated MW	52.1 kDa
Accession	Q14956-2
Bio-activity	Not validated for activity

Properties

Purity	> 98 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg 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 sterile PBS, pH 7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 98 % 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; 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.