Recombinant Rat GP1BB/CD42c Protein (Fc Tag)

Catalog Number: PKSR030173

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

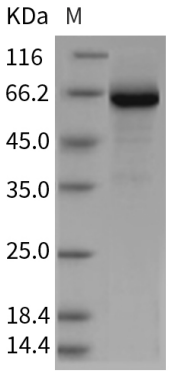
Description

Species	Rat
Source	HEK293 Cells-derived Rat GP1BB/CD42c protein Met1-Cys147, with an C-terminal hFc
Calculated MW	40.1 kDa
Observed MW	63 kDa
Accession	Q9JJM7
Bio-activity	Not validated for activity

Properties

Purity	> 85 % 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 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ 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



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Background

Platelet glycoprotein Ib (GPIb) complex is best known as a major platelet receptor for von Willebrand factor essential for platelet adhesion under high shear conditions found in arteries and in thrombosis. The GPIb complex is composed of GPIb alpha (Platelet glycoprotein Ib alpha chain) covalently attached to GPIb beta (Platelet glycoprotein Ib beta chain) and noncovalently complexed with GPIX and GPV. GPIb-beta, also known as GP1BB, CD42b-beta and CD42c, is single-pass type I membrane protein expressed in heart and brain, which is a critical component of the von Willebrand factor (vWF) receptor. The cysteine knot region of GPIb beta in the N terminus is critical for the conformation of GPIb beta that interacts with GPIX. The precursor of GP1BB is synthesized from a 1.0 kb mRNA expressed in plateletes and megakaryocytes. GPIb is a heterodimeric transmembrane protein consisting of a disulfide-linked 140 kD alpha chain and 22 kD beta chain. GPIb alpha chain provides the vWF binding site, and GPIb beta chain contributes to surface expression of the receptor and participates in transmembrane signaling through phosphorylation of its intracellular domain. GP1BB is part of the GPIb-V-IX system that constitutes the receptor for von Willebrand factor (vWF), and mediates platelet adhesion in the arterial circulation. Defects in GP1BB are a cause of Bernard-Soulier syndrome (BSS), also known as giant platelet disease (GPD). BSS patients have unusually large platelets and have a clinical bleeding tendency.