Recombinant Human Thrombospondin-1/THBS1 Protein (His Tag)

Catalog Number: PKSH033500

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

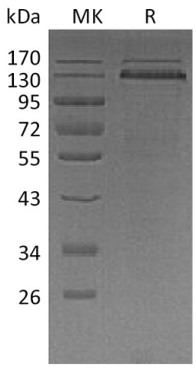
Description

Species	Human
Source	HEK293 Cells-derived Human Thrombospondin-1/THBS1 protein Asn19-Pro1170, with an C-terminal His
Calculated MW	129.2 kDa
Observed MW	130&170 kDa
Accession	P07996
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 a 0.2 μm filtered solution of 20mM PB, 8% Trehalose, 4% Mannitol, 200mM NaCl, 0.02% Tween 80, pH6.5. 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



> 85 % as determined by reducing SDS-PAGE.

Background

Thrombospondin-1 (TSP-1) is a 150-180kDa calcium-sensitive protein that is secreted as a disulfide-linked homotrimer. TSP-1 regulates a wide range of cellular functions including their interactions with other cells and with the extracellular matrix (ECM). TSP-1 contains an N-terminal Laminin G-like globular domain, an extended central region with one vWFC domain, 3 TSP type 1domains, 2 EGF-like domains, and 8 TSP type3 domains, and a globular TSP C-terminal domain. Distinct regions of TSP-1 have been associated with binding to particular ECM or cellular molecules. TSP-1 counteracts the angiogenic, hypotensive, and antithrombotic effects of nitric oxide (NO). It binds and neutralizes VEGF, blocks VEGF R2 signaling on vascular endothelial cells(EC), and destabilizes adhesive contacts between EC. TSP-1 also plays an important role in wound repair and tissue fibrosis by binding latent TGF-beta and inducing release of the active cytokine from the latency associated peptide (LAP).