

Recombinant Human Tie1 Protein (His Tag)

Catalog No. PKSH031562

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

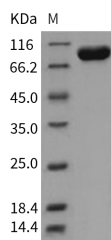
Description

Synonyms	Tyrosine-Protein Kinase Receptor Tie-1;TIE1;TIE
Species	Human
Expression Host	HEK293 Cells
Sequence	Met 1-Gln 760
Accession	NP_005415.1
Calculated Molecular Weight	81.4 kDa
Observed molecular weight	80-90 kDa
Tag	C-His
Bioactivity	Not validated for activity

Properties

Purity	> 97 % 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% Tween80 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



> 97 % as determined by reducing SDS-PAGE.

Background

Tyrosine kinase with immunoglobulin-like and EGF-like domains 1 also known as Tie1 is an angiopoietin receptor and is an orphan receptor tyrosine kinase that is expressed almost exclusively in endothelial cells and that is required for normal

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embryonic vascular development. The receptor tyrosine kinase Tie1 is expressed primarily in vascular endothelial cells. The receptor has also been detected in epithelial tumours in breast, thyroid and gastric cancers and in tumour cell lines where it appears as a 45 kDa truncated receptor fragment. Tie1 promotes endothelial cell survival, but other studies have suggested that the Tie1 kinase has little to no activity. Embryos deficient in Tie1 failed to establish structural integrity of vascular endothelial cells, resulting in oedema and subsequently localized haemorrhage. Tie1 is significantly higher in human aortic endothelial cells than in human umbilical vein endothelial cells. Additionally, attachment of cells of monocytic lineage to endothelial cells is also enhanced by Tie1 expression. Collectively Tie1 has a proinflammatory property and may play a role in the endothelial inflammatory diseases such as atherosclerosis.