Data Sheet (Cat.No.TMPY-01910)

TargetMol

TIE1 Protein, Human, Recombinant (His)

General Information

Synonyms: tyrosine kinase with immunoglobulin-like and EGF-like domains 1;TIE;JTK14

Protein Construction: Ala22-Gln759

Species: Human

Expression Host: HEK293 Cells

Accession: P35590-1

Molecular Weight: 80.93 kDa (Predicted); 81-100 kDa (Due to glycosylation)

QC Testing

Biological Activity: Activity testing is not tested. It is theoretically active, but we cannot guarantee it.

Purity: > 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC

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

Formulation: Lyophilized from 0.22 μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

TIE1 is a cell surface protein expressed in endothelial cells. Involved in angiogenesis and lymphangiogenesis, including morphogenesis of lymphatic valves, TIE1 is important for lymphatic system functional integrity.

Reference

Chan B, et al. (2008) Receptor tyrosine kinase Tie-1 overexpression in endothelial cells upregulates adhesion molecules. Biochem Biophys Res Commun. 371(3): 475-9.
Sato TN, et al. (1995) Distinct roles of the receptor tyrosine kinases Tie-1 and Tie-2 in blood vessel formation. Nature. 376(6535): 70-4.
Rees KA, et al. (2007) The receptor tyrosine kinase Tie1 is expressed and activated in epithelial tumour cell lines. Int J Oncol. 31(4): 893-7.
Kontos CD, et al. (2002) The endothelial receptor tyrosine kinase Tie1 activates phosphatidylinositol 3-kinase and Akt to inhibit apoptosis. Mol Cell Biol. 22(6): 1704-13.

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