For Research Use Only

Recombinant Mouse Tie-2/CD202b protein (rFc Tag)

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Catalog Number: Eg1514

Basic Information

Species:
Mouse

Purity:
>90 %, SDS-PAGE

Tag:
rFc Tag

Technical Specifications

Purity:
>90 %, SDS-PAGE

Endotoxin Level:
<0.1 EU/μg protein, LAL method

Source:
HEK293-derived Mouse Tie-2 protein Ala23-Lys744 (Accession# Q02858) with a rabbit IgG Fc tag at the C-terminus.

GeneID:
21687

Accession:
Q02858

Predicted Molecular Mass:
106.9 kDa

SDS-PAGE:
120-140 kDa, reducing (R) conditions

Formulation:
Lyophilized from 0.22 μm filtered solution in PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before lyophilization.

Biological Activity

Not tested

Storage and Shipping

Storage:
It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

- Until expiry date, -20℃ to -80℃ as lyophilized proteins.
- 3 months, -20℃ to -80℃ under sterile conditions after reconstitution.

Shipping:
The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.

Reconstitution

Briefly centrifuge the tube before opening. Reconstitute at 0.1-0.5 mg/mL in sterile water.

Background

Tie-2, also known as CD202b or TEK, is a receptor tyrosine kinase (RTK) specifically expressed in endothelial cells. It plays a crucial role in angiogenesis, forming new blood vessels, and maintaining vascular stability. TIE-2 is a tyrosine kinase receptor expressed mainly by endothelial cells, cancer cells, and some immune cells like monocytes. Tie-2 is a member of the Tie receptor family, characterized by the presence of immunoglobulin and epidermal growth factor (EGF) homology domains. Tie-2 is selectively expressed in endothelial cells and gene deficiency of Tie-2 leads to embryonic lethality due to abnormal vascular development. Ang-1, which is secreted from perivascular cells, has been identified as the major ligand for Tie-2. Binding of Ang-1 to Tie-2 elicits different downstream signaling pathways mainly regulated by Akt, which induces pro-angiogenic responses including the promotion of endothelial cell migration, tube formation and survival.

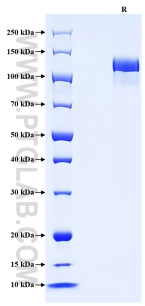
References

1. Dumont DJ. et al. (1992) Oncogene. 7(8):1471-80.
2. Duran CL. et al. (2021) Cancers (Basel). 13(22):5730.
3. Sato TN. et al. (1995) Nature. 376(6535):70-4.
4. Isidori AM. et al. (2016) J Endocrinol Invest. 39(11):1235-1246.
5. Fukuhara S. et al. (2010) Histol Histopathol. 25(3):387-96.

Synonyms

Angiopoietin-1 receptor, CD202b, EC:2.7.10.1, Endothelial tyrosine kinase, HYK

Selected Validation Data



Purity of Recombinant Mouse Tie-2 was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) conditions and stained using Coomassie blue.