Human FGFR4 / FGF Receptor 4 Protein (Fc Tag)

Catalog Number: **10538-H02H**

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General Information

Gene Name Synonym:

CD334; JTK2; TKF; Fgfr-4

Protein Construction:

A DNA sequence encoding the extracellular domain (Met 1-Asp 369) of human FGFR4 (NP_002002.3) precursor was fused with the Fc region of human IgG1 at the C-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 97 % as determined by SDS-PAGE

Bio Activity:

Measured by its ability to inhibit FGF acidic (aFGF / FGF1) dependent proliferation of Balb/c3T3 mouse embryonic fibroblasts. The ED_{50} for this effect is typically 5-25ng/mL.

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Leu 22

Molecular Mass:

The recombinant human FGFR4/Fc is a disulfide-linked homodimer after removal of the signal peptide. The reduced monomer consists of 586 amino acids and has a predicted molecular mass of 66 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rh FGFR4/Fc monomer is approximately 100-110 kDa due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

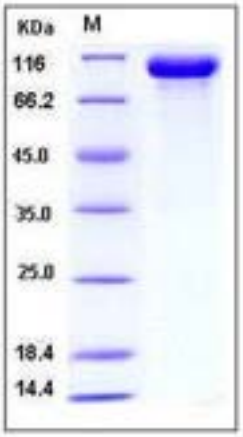
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Fibroblast growth factor receptor 4 (FGFR4) also known as CD334 antigen or tyrosine kinase related to fibroblast growth factor receptor, is a member of the fibroblast growth factor receptor family, where amino acid sequence is highly conserved between members and throughout evolution. FGFR family members differ from one another in their ligand affinities and tissue distribution. A full-length representative protein would consist of an extracellular region, composed of three immunoglobulin-like domains, a single hydrophobic membrane-spanning segment and a cytoplasmic tyrosine kinase domain. The extracellular portion of FGFR4/CD334 interacts with fibroblast growth factors, setting in motion a cascade of downstream signals, ultimately influencing mitogenesis and differentiation. FGFR4/CD334 preferentially binds acidic fibroblast growth factor and, although its specific function is unknown, it is overexpressed in gynecological tumor samples, suggesting a role in breast and ovarian tumorigenesis. FGFR4/CD334 signaling is down-regulated by receptor internalization and degradation; MMP14 promotes internalization and degradation of FGFR4/CD334. Mutations in FGFR4/CD334 lead to constitutive kinase activation or impair normal FGFR4 inactivation lead to aberrant signaling.

References

1.Hart KC, *et al.* (2000) Transformation and Stat activation by derivatives of FGFR1, FGFR3, and FGFR4. Oncogene. 19(29): 3309-20.
2.Xie MH, *et al.* (1999) FGF-19, a novel fibroblast growth factor with unique specificity for FGFR4. Cytokine. 11(10): 729-35.
3.Yu C, *et al.* (2000) Elevated cholesterol metabolism and bile acid synthesis in mice lacking membrane tyrosine kinase receptor FGFR4. J Biol Chem. 275(20): 15482-9.