Mouse FGFR3 / CD333 Protein (His Tag)

Catalog Number: **50071-M08H**

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

CD333; Fgfr-3; Flg-2; FR3; HBGFR; Mfr3; sam3

Protein Construction:

A DNA sequence encoding the extracellular domain (Met 1-Tyr 367) of mouse FGFR3 (NP_032036.2) was expressed, fused with a polyhistidine tag at the C-terminus.

Source: Mouse

Expression Host: HEK293 Cells

QC Testing

Purity: > 98 % as determined by SDS-PAGE

Bio Activity:

Measured by its ability to inhibit FGF acidic dependent proliferation of Balb/c3T3 mouse embryonic fibroblasts. The ED_{50} for this effect is typically 0.3-4 μg/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: Glu 21

Molecular Mass:

The recombinant mouse FGFR3 comprises 358 amino acids and has a calculated molecular mass of 37 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rmFGFR3 is approximately 70-80 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:

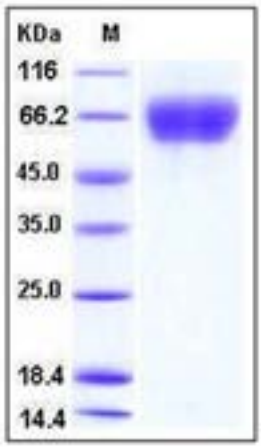
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

FGFR3, also known as CD333, is a member of the fibroblast growth factor receptor (FGFR) family, with its amino acid sequence being highly conserved between members and among divergent species. FGFR family members differ from one another in their ligand affinities and tissue distribution. FGFRs are transmembrane catalytic receptors that have intracellular tyrosine kinase activity. Mutations in FGFR genes are the cause of several human developmental disorders characterized by skeletal abnormalities such as achondroplasia, and upregulation of FGFR expression may lead to cell transformation and cancer. FGFR3, 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 FGFR3 interacts with fibroblast growth factors, setting in motion a cascade of downstream signals, ultimately influencing mitogenesis and differentiation. FGFR3 binds acidic and basic fibroblast growth hormone and plays a role in bone development and maintenance. Mutations in FGFR3 gene lead to craniosynostosis and multiple types of skeletal dysplasia. Three alternatively spliced transcript variants that encode different protein isoforms have been described. CD333 is the receptor for acidic and basic fibroblast growth factors.

References

1.Keegan K, *et al.* (1991) Isolation of an additional member of the fibroblast growth factor receptor family, FGFR-3. Proc Natl Acad Sci. 88(4):1095-9. 2.Hafner C, *et al.* (2007) FGFR3 mutations in epidermal nevi and seborrheic keratoses: lessons from urothelium and skin. J Invest Dermatol. 127(7):1572-3. 3.Lamy A, *et al.* (2006) Molecular profiling of bladder tumors based on the detection of FGFR3 and TP53 mutations. J Urol. 176(6 Pt 1):2686-9.