

Human FGFR3 / CD333 Protein (alpha(IIIb), Fc Tag)

Catalog Number: 16486-H02H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

ACH; CD333; CEK2; HSFGR3EX; JTK4

Protein Construction:

A DNA sequence encoding the human FGFR3(alpha(IIIb)) (NP_001156685.1) (Met1-Gly377) was expressed with the Fc region of human IgG1 at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE.

Bio Activity:

Measured by its ability to inhibit FGF-acidic dependent proliferation of Balb/c 3T3 mouse fibroblasts. The ED₅₀ for this effect is typically 20-120 ng/mL

Endotoxin:

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

Predicted N terminal: Glu 23

Molecular Mass:

The recombinant human FGFR3(alpha(IIIb)) consists 593 amino acids and predicts a molecular mass of 65.3 kDa.

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

Stability & Storage:

Samples are stable for twelve months from date of receipt at -20°C to -80°C.

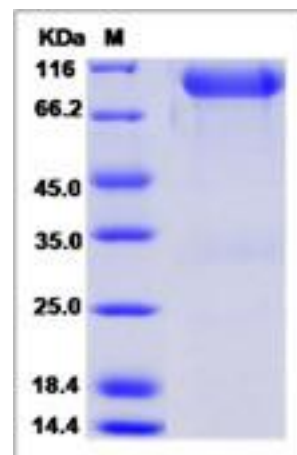
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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.