

Recombinant Human Fibroblast Growth Factor Receptor 3, Fc-tagged

Cat. No. FGFR3-03H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Soluble FGFR-3a (IIIc) Fc Chimera fused with Xa cleavage site with the Fc part of human IgG1 produced in baculovirus is a heterodimeric, glycosylated, Polypeptide chain and having a molecular mass of 190 kDa. The FGFR3 is purified by proprietary chromatographic techniques.
Species	Human
Source	Insect Cells
Description	Fibroblast Growth Factors (FGFs) comprise a family of at least eighteen structurally related proteins that are involved in a multitude of physiological and pathological cellular processes, including cell growth, differentiation, angiogenesis, wound healing and tumorigenesis. The biological activities of the FGFs are mediated by a family of type I transmembrane tyrosine kinases which undergo dimerization and autophosphorylation after ligand binding. Four distinct genes encoding closely related FGF receptors, FGFR-1 to -4 are known. Multiple forms of FGFR-1 to -3 are generated by alternative splicing of the mRNAs. A frequent splicing event involving FGFR-1 and -2 results in receptors containing all three Ig domains, referred to as the α isoform, or only IgII and IgIII, referred to as the β isoform. Only the α isoform has been identified for FGFR-3 and FGFR-4. Additional splicing events for FGFR-1 to -3, involving the C-terminal half of the IgIII domain encoded by two mutually exclusive alternative exons, generate FGF receptors with alternative IgIII domains (IIIb and IIIc). A IIIa isoform which is a secreted FGF binding protein

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containing only the N-terminal half of the IgIII domain plus some intron sequences has also been reported for FGFR-1. Mutations in FGFR-1 to -3 have been found in patients with birth defects involving craniosynostosis.

Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	Greater than 90.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
Formulation	CD333 was lyophilized from a concentrated (1 mg/ml) sterile solution containing no additives.
Solubility	It is recommended to reconstitute the lyophilized FGFR-3 in sterile PBS not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.
Biological Activity	Determined by its ability to inhibit human FGF acidic-dependent proliferation on R1 cells. The ED50 for this effect is typically at 15.0-30.0 ng/ml.
Storage	Lyophilized FGFR3A although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution FGFR3 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

GENE INFORMATION

Gene Name	FGFR3 fibroblast growth factor receptor 3 [Homo sapiens]
Synonyms	FGFR3; fibroblast growth factor receptor 3; ACH; CEK2; JTK4; CD333; HSFGR3EX; OTTHUMP00000149958; OTTHUMP00000149959; tyrosine kinase JTK4;

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	hydroxyaryl-protein kinase; achondroplasia, thanatophoric dwarfism; EC 2.7.10.1; FGFR-3; CD333 antigen
Gene ID	2261
mRNA Refseq	NM_000142
Protein Refseq	NP_000133
MIM	134934
UniProt ID	P22607
Chromosome Location	4p16.3
Pathway	Bladder cancer; Endocytosis; MAPK signaling pathway; Pathways in cancer; Regulation of actin cytoskeleton; Signaling by FGFR
Function	ATP binding; fibroblast growth factor receptor activity; identical protein binding; nucleotide binding; receptor activity; transferase activity

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