

# 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 alpha isoform, or only IgII and IgIII, referred to as the beta isoform. Only the alpha 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; HSGFR3EX; OTTHUMP00000149958; OTTHUMP00000149959; tyrosine kinase JTK4;

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

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