

California Bioscience

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Product Datasheet

Product Name	Fibroblast Growth Factor Receptor 3 Fc Chimera Human Recombinant
Cata No	CB500838
Source	Insect Cells
Synonyms	Achondroplasia, Thanatophoric Dwarfism, CD333, ACH, CEK2, JTK4, HSFGFR3EX, FGFR3.

Description

Fibroblast Growth Factors (FGFs) comprise a family of at least eighteen structurally realted proteins that are involved in a multitude of physiological and pathological cellular processes, including cell growth, differentation, angiogenesis, wound healing and tumorgenesis. The biological activities of the FGFs are mediated by a family if type I transmembrane tyrosine kinases which undergo dimerization and autophosphorylation after ligand binding. Four distinct genes encoding closely related FGF receptors, FGFR-1to -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 ß 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 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.

Soluble FGFR-3a (IIIc) Fc Chimera Human Recombinant 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.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Biological Activity

Determined by its ability to inhibit human FGF acidic-dependent proliferation on R1 cells. The ED_{50} for this effect is typically at 15.0-30.0 ng/ml.

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.

Reconstitution

It is recommended to reconstitute the lyophilized FGFR-3 in sterile PBS not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.

Stability

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



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and for future use below -18℃. For long term storage it is recommended to add a carrier protein (0.1% HSR problem: t Datasheet Please prevent freeze-thaw cycles.