

DA3528X

Recombinant Human CD333/sFGFR3 alpha (IIIC - Fc Chimera)

Alternate names:

FGFR-3, Fibroblast growth factor receptor 3, JTK4

Quantity:

50 µg

Background:

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 β 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.

Uniprot ID:

[P22607](#)

NCBI:

[NP_000133.1](#)

GeneID:

[2261](#)

Species:

Human

Source:

Insect cells

Format:

State: Lyophilized purified protein.
Purity: >90% by SDS-PAGE and visualised by silver stain.
Buffer System: PBS without stabilizers or preservatives.
Endotoxin Level: < 0.1 ng per µg of sFGF-R3a.
Reconstitution: Restore in PBS or medium to a concentration not lower than 50 µg/ml.

Description:

Recombinant Human soluble FGFR-3 alpha (IIIc) was fused via a Xa cleavage site with the Fc part of Human IgG1.

Human recombinant soluble FGFR-3 alpha (IIIc)/Fc is a disulfide-linked heterodimeric protein. In the reduced form the glycosylated subunits of sFGFR-3 alpha/Human Fc chimera display a molecular mass of 80-85 kDa.

AA Sequence:
ESLGTEQRVVGRAAEVPGPEPGQQEQLVFGSGDAVELSCPPPGGGPMGPTVWVKDGTGLVPSERVLVGPQRL
QVLNA
SHEDSGAYSCRQRLTQRVLCHFVRVTAPSSGGDEDEGEAEEDTGVDTPGYWTRPERMDKLLAVPAANTV
RFRCP
AAGNPTPSISWLKNGREFRGEHRIGGIKLRHQWLSLVMESVVPVSDRGNYTCVVENKFGSIRQTYTLVDLERS

PHRPI
LQAGLPANQTAVLGSDVEFHCKVSDAQPHIQWLKHVEVNGSKVGPDGTPYVTVLKTAGANTTDKELEVLSLH
NVTFE
DAGEYTCLAGNSIGFSHSAWLVLPAEEELVEADEAGDPRRASIEGRGDPEEPKSCDKTHTCPPCPAPELL
GPSVF
LFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVTVLHQDWL
NGKEY
KCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLCLVKGFYPSDIAVEWESNGQPENNYK
TTPPV
LDSDGSFFLYSKLTVDKSRWQQGNVFCFSVMHEALHNHYTQKSLSLSPGK

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.

Molecular weight: 170 kDa

Add. Information:

Centrifuge vials before opening!

Storage:

Store Lyophilized at -20°C to -70°C for greater than six months.

Reconstituted sFGFR-3a (IIIC)/Fc should be stored in working aliquots at -20°C.

Avoid repeated freeze-thaw cycles!

General Readings:

1. Eisemann et al., Oncogene 6:1195, 1991.
2. Givol et al., FASEB J 6:3362, 1992.

Pictures:

SDS-PAGE analysis of recombinant Human soluble FGFR-3/Fc produced in insect cells.

Sample was loaded in 10% SDS-polyacrylamide gel under reducing condition and stained with Coomassie blue.

