

**RELIA**Tech GmbH  
Lindener Str. 15  
38300 Wolfenbüttel  
Germany

Tel.: +49 5331 8586 987  
Fax: +49 5331 8586 989  
Email: [info@reliatech.de](mailto:info@reliatech.de)  
Web: [www.reliatech.de](http://www.reliatech.de)

## Recombinant Human sFGFR-1 alpha (IIIc)/Fc Chimera

**Description:** Recombinant human soluble FGFR-1 alpha (IIIc) was fused via a Xa cleavage site with the Fc part of human IgG<sub>1</sub>. Human recombinant soluble FGFR-1 alpha (IIIc)/Fc is a disulfide-linked heterodimeric protein. In the reduced form the glycosylated subunits of sFGFR-1 alpha/human Fc chimera display a molecular mass of 80-85 kDa.

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 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.

<b>Source:</b>	Insect cells
<b>Molecular Weight:</b>	170 kDa (dimer, glycosylated)
<b>Purity:</b>	> 90%, by SDS-PAGE and visualized by silver stain
<b>Endotoxin level:</b>	< 0.1 ng per $\mu$ g of sFGFR-1 alpha
<b>Stabilizer:</b>	none
<b>Buffer:</b>	PBS
<b>Formulation:</b>	lyophilized

**Biological Activity:** Determined by its ability to inhibit human FGF acidic-dependent proliferation on R1 cells. The ED<sub>50</sub> for this effect is typically at 15.0-30.0 ng/ml.

**Reconstitution:** The lyophilized sFGFR-1alpha (IIIc)/Fc is soluble in water and most aqueous buffers. The lyophilised sFGFR-1alpha (IIIc)/Fc should be reconstituted in PBS or medium to a concentration not lower than 50  $\mu$ g/ml.

**Stability:** Lyophilized samples are stable for greater than six months at -20°C to -70°C. Reconstituted sFGFR-1alpha (IIIc)/Fc should be stored in working aliquots at -20°C. **Avoid repeated freeze-thaw cycles!**

**Usage:** sFGFR-1 alpha (IIIc)/Fc is offered for research use. Not for drug use. **Not for human use!**

<b>Catalogue number:</b>	SFC-016	<b>Size:</b>	50 $\mu$ g
		<b>Range:</b>	10-100 ng/ml

Literature: [Eisemann et al., Oncogene 6:1195, 1991; Givol et al., FASEB J 6:3362, 1992]