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DA3526X Human FGFR1 (IIIC - Fc Chimera) - Purified

Alternate names: BFGFR, BFGFR, Basic fibroblast growth factor receptor 1, CEK, FGFBR, FLG, FLT-2, FLT2, Fibroblast growth factor receptor 1, Fms-like tyrosine kinase 2, HBGFR, N-sam, Proto-oncogene c-Fgr, bFGF-R-1

Quantity: 50 µg

Background: 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 ÿ 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: P11362

NCBI: NP_001167534.1

GeneID: 2260

Species: Human

Source: Insect cells

Format:
State: Lyophilized purified protein.
Purity: ›90% by SDS-PAGE and visualised by silver stain.
Buffer System: PBS
Stabilizers: None
Endotoxin Level: ‹ 0.1 ng per µg of sFGF-R1a.
Reconstitution: Restore in PBS or medium to a concentration not lower than 50 µg/ml. The lyophilized sFGFR-1 alpha (IIIc)/Fc is soluble in water and most aqueous buffers.

Description: Recombinant Human Soluble FGFR-1/Fc Chimera.
Recombinant Human soluble FGFR-1 alpha (IIIc) was fused via a Xa cleavage site with the Fc part of Human IgG1. 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.
AA Sequence:
RPSPTLPEQAQPWGAPVEVESFLVHPGDLLQLRCRLRDDVQSINWLRDGVQLAESNRTRITGEEVEVQDSVP

ADSGL
YACVTSSPSGSDTTYFSVNVSDALPSSEDDDDDDDSSSEEKETDNTKPNRMPVAPYWTSPEKMEKKLHAVPA
AKTVK
FKCPSSGTPNPTLRWLKNGKEFKPDHRIGGYKVRYATWSIIMDSVVPSDKGNYTCIVENEYGSINHTYQLDV
VERSP
HRPILQAGLPANKTVALGSNVEFMCKVYSDPQPHIQWLKHIEVNGSKIGPDNLPYVQILKTAGVNTTDKEME
VLHLR
NVSFEDAGEYTCLAGNSIGLSHHSAWLTVLEALEERPAVMTSPLYLEDPRRASIEGRGDPEEPKSCDKTHTC
PPCPA
PELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVV
SVLTV
LHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVE
WESNG
QPENNYKTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFSCSVMHEALHNHYTQKSLSLSPGK

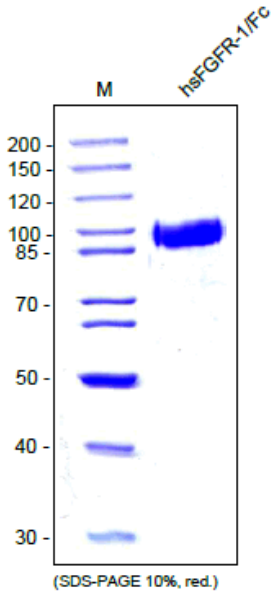
Biological Activity: Determined by its ability to inhibit human FGF basic-dependent proliferation on HUVE cells.
Inhibition of bFGF-induced proliferation of NHDF cells by recombinant sFGFR1-Fc (Cat.-No DA3526).
Molecular weight: 170 kDa (Glycosylated dimer).

Add. Information: Centrifuge vials before opening!

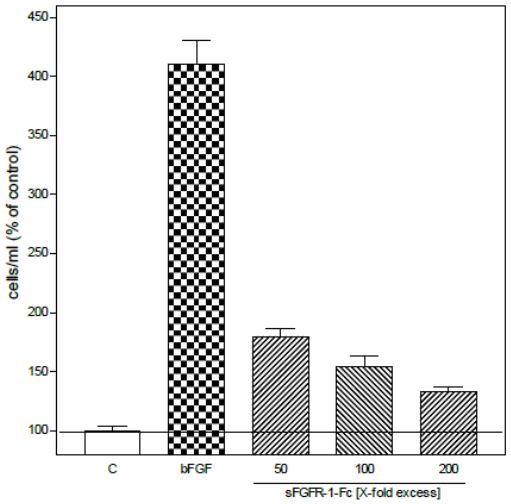
Storage: Store lyophilized at 2-8°C for 6 months or at -20°C long term.
After reconstitution store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C long term.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

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-1/Fc produced in insect cells. Sample was loaded in 10% SDS-polyacrylamide gel under reducing condition and stained with Coomassie blue.



Inhibition of the basic FGF-induced proliferation of HUVE cells by recombinant human sFGFR-1-Fc. HUVECs were stimulated with 10 ng/ml bFGF, the soluble receptor was added with a 50 - 200X excess



Primary human dermal fibroblasts (HDNF) were stimulated with 10ng/ml FGF-2 (basic) which was preincubated with increasing amounts of recombinant human soluble FGFR1-Fc chimera (Cat.-No DA3526).