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DATASHEET
Version 20181206

FGFR-1α (IIIc)-Fc, Human

Cat. No.: Z03223-10

Size: 10.0 ug

Synonyms: BFGFR, CD331

Description:

Fibroblast Growth Factor Receptor-1 (FGFR-1) is a transmembrane tyrosine kinase receptor belonging to the FGFR family. FGFR family has 4 members, FGFR-1 to FGFR-4, and they all have similar structural characteristics with 3 extracellular immunoglobulin-like (Ig) domains. FGFRs bind to FGFs with the second and third Ig domains, and complex with heparin sulfate when binding. The binding to FGF induces the dimerziation of FGFR and the phosphorylations of the intracellular tyrosines. Furthermore, the phosphorylated FGFR activates downstream signaling pathways, including STAT/JAK, RAS/MAPK, and PI3 K/AKT. Particularly, the signaling of FGFR-1 is stronger than that of FGFR-2, and sustains longer than that of FGFR-4. FGFR-1 is involved in the breast cancer: the patients with the FGFR-1 amplification are more likely to develop distant metastases, and the amplification of FGFR-1 is significantly associated with a shorter overall survival.

Recombinant human FGFR-1 alpha(IIIc)-Fc (rhFGFR-1 alpha(IIIc)-Fc) produced in Sf9 is a single glycosylated polypeptide chain containing 592 amino acids. A fully biologically active molecule, rhFGFR-1 alpha(IIIc)-Fc has a molecular mass of around 90 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

Amino Acid Sequence:

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00001 RPSPTLPEQA QPWGAPVEVE SFLVHPGDLL QLRCRLRDDV
00041 QSINWLRDGV QLAESNRTRI TGEEVEVQDS VPADSGLYAC
00081 VTSSPSGSDT TYFSVNVSDA LPSSEDDDDD DDSSSEEKET
00121 DNTKPNPVAP YWTSPEKMEK KLHAVPAAKT VKFKCPSSGT
00161 PNPTLRWLKN GKEFKPDHRI GGYKVRYATW SIIMDSVVPS
00201 DKGNYTCIVE NEYGSINHTY QLDVVERSPH RPILQAGLPA
00241 NKTVALGSNV EFMCKVYSDP QPHIQWLKHI EVNGSKIGPD
00281 NLPYVQILKT AGVNTTDKEM EVLHLRNVSF EDAGEYTCLA
00321 GNSIGLSHHS AWLTVLEALE ERPAVMTSPL YLEGSGSGSG
00361 SPKSCDKTHT CPPCPAPELL GGPSVFLFPP KPKDTLMISR
00401 TPEVTCVVVD VSHEDPEVKF NWYVDGVEVH NAKTKPREEQ
00441 YNSTYRVVSV LTVLHQDWLN GKEYKCKVSN KALPAPIEKT
00481 ISKAKGQPRE PQVYTLPPSR DELTKNQVSL TCLVKGFYPS
00521 DIAVEWESNG QPENNYKTTP PVLDSDGSFF LYSKLTVDKS
00561 RWQQGNVFSC SVMHEALHNH YTQKSLSLSP GK
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Source: *Sf9 insect cells*

Species: Human

Biological Activity: ED_{50} < 2 ng/mL, measured by the neutralization assay using 3T3 cells in presence of 4 ng/mL of human FGF-acidic, corresponding to a specific activity of > 5×10^5 units/mg.

Molecular Weight: 90 kDa, observed by reducing SDS-PAGE.

Formulation: Lyophilized after extensive dialysis against PBS.

Reconstitution: Reconstituted in ddH_2O at 100 μg/mL.

Purity: > 95% by SDS-PAGE and HPLC analyses.

Endotoxin Level: < 0.2 EU/μg, determined by LAL method.

Storage: Lyophilized recombinant human FGFR-1 alpha(IIIc)-Fc (rhFGFR-1 alpha(IIIc)-Fc) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rhFGFR-1 alpha(IIIc)-Fc remains stable up to 2 weeks at 4°C or up to 3 months at -20°C.

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