

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant FGFR-1 α (IIIc)-Fc, Human

Catalog Number: BK0354-1mg

Source: SF9 insect cells

Quantity: 1mg

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

Molecular Weight:

~90 kDa, observed by reducing SDS-PAGE.

Purity:

> 95% by SDS-PAGE and HPLC analyses.

Biological Activity:

ED50 < 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 \times 10⁵ units/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized after extensive dialysis against PBS.

AA Sequence:

RPSPTLPEQAQPW-

GAPVEVESFLVHPGDLLQLRCRLRDDVQSIN-
WLRDGVQLAESNRTRITGEEVEVQDSVPADSGL
YACVTSSPSGSDTTYFSVNVN-
DALPSEDDDDDDSSSEEKETDNTKPNPVAP-
YWTSPEKMEKKLHAVPAK-
TVKFKCPSSGTPNPTLRWLKNGKEFKPDH-
RIGGYKVRYATWSIIMDSVVPKDKGNY-
TCIVENEYGSINHTYQLDVVERS-
PHRPILQAGLPANKTVALGSN-
VEFMCKVYSDPQPHIQWLKHIEVNGSKIG-
PDNLPYVQILKTAGVNTTDKEMEVLHL-
RNVSFEDAGEYTCLAGNSIGLSHH-
SAWLTVLEALEERPAMTSPLYLEGSGSGS-
SPKSCDKTHTCPPCPAPPELLGGPSVFLF-
PPKPKDTLMIS-
RTPEVTCVVVDVSHEDPEVKFNWY-
VDGVEVHNAK-
TKPREEQYNSTYRVVSVLTVLHQDWLNGKEY-
KCKVSNKALPAPIEK-
TISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLV-
KGFYPSDIAVEWESNGQPEN-
NYKTTTPPVLDSDGS-
FFLYSKLTVDKSRWQQGNVFCSSVM-
HEALHNHYTQKSLSLSPGK

Endotoxin:

< 0.2 EU/ μ g, determined by LAL method.

Reconstitution:

Reconstituted in ddH₂O at 100 μ g/mL.

Storage:

Lyophilized recombinant human FGFR-1 α (IIIc)-Fc (rhFGFR-1 α (IIIc)-Fc) remains stable up to 6 months at -80 $^{\circ}$ C from date of receipt. Upon reconstitution, rhFGFR-1 α (IIIc)-Fc remains stable up to 2 weeks at 4 $^{\circ}$ C or up to 3 months at -20 $^{\circ}$ C.

Usage:

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