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BFGFR, CD331

Catalog # PVGS1398

Product Information

Primary Accession	P11362, P01857
Species	Human
Sequence	RPSPTLPEQA QPWGAPVEVE SFLVHPGDLL QLRCRLRDDV QSINWLRDGV QLAESNRTRI TGEEVEVQDS VPADSGLYAC VTSSPSGSDT TYFSVNVSDA LPSSEDDDDD DDSSSEEKET DNTKPNPVAP YWTSPEKMEK KLHAVPAAKT VKFKCPSSGT PNPTLRWLKN GKEFKPDHRI GGYKVRYATW SIIMDSVVPS DKGNYTCIVE NEYGSINHTY QLDVVERSPH RPILQAGLPA NKTVALGSNV EFMCKVYSDP QPHIQWLKHI EVNGSKIGPD NLPYVQILKT AGVNTTDKEM EVLHLRNVSF EDAGEYTCLA GNSIGLSHHS AWLTVLEALE ERPAVMTSPL YLEGSGSGSG SPKSCDKTHT CPPCPAPELL GGPSVFLFPP KPKDTLMISR TPEVTCVVVD VSHEDPEVKF NWYVDGVEVH NAKTKPREEQ YNSTYRVVSV LTVLHQDWLN GKEYKCKVSN KALPAPIEKT ISKAKGQPRE PQVYTLPPSR DELTKNQVSL TCLVKGFYPS DIAVEWESNG QPENNYKTTP PVLDSDGSFF LYSKLTVDKS RWQQGNVFSC SVMHEALHNH YTQKSLSLSP GK
Purity	> 95% by SDS-PAGE and HPLC analyses.
Endotoxin Level	
Formulation	Lyophilized after extensive dialysis against PBS.
Reconstitution	Reconstituted in ddH_2O at 100 □g/mL.

Additional Information

Gene ID	2260
Target Background	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 .

Protein Information

Name	FGFR1
Synonyms	BFGFR, CEK, FGFBR, FLG, FLT2, HBGFR
Function	Tyrosine-protein kinase that acts as a cell-surface receptor for fibroblast growth factors and plays an essential role in the regulation of embryonic development, cell proliferation, differentiation and migration. Required for normal mesoderm patterning and correct axial organization during embryonic development, normal skeletogenesis and normal development of the gonadotropin-releasing hormone (GnRH) neuronal system. Phosphorylates PLCG1, FRS2, GAB1 and SHB. Ligand binding leads to the activation of several signaling cascades. Activation of PLCG1 leads to the production of the cellular signaling molecules diacylglycerol and inositol 1,4,5-trisphosphate. Phosphorylation of FRS2 triggers recruitment of GRB2, GAB1, PIK3R1 and SOS1, and mediates activation of RAS, MAPK1/ERK2, MAPK3/ERK1 and the MAP kinase signaling pathway, as well as of the AKT1 signaling pathway. Promotes phosphorylation of SHC1, STAT1 and PTPN11/SHP2. In the nucleus, enhances RPS6KA1 and CREB1 activity and contributes to the regulation of transcription. FGFR1 signaling is down-regulated by IL17RD/SEF, and by FGFR1 ubiquitination, internalization and degradation.
Cellular Location	Cell membrane; Single-pass type I membrane protein. Nucleus. Cytoplasm, cytosol. Cytoplasmic vesicle. Note=After ligand binding, both receptor and ligand are rapidly internalized. Can translocate to the nucleus after internalization, or by translocation from the endoplasmic reticulum or Golgi apparatus to the cytosol, and from there to the nucleus
Tissue Location	Detected in astrocytoma, neuroblastoma and adrenal cortex cell lines. Some isoforms are detected in foreskin fibroblast cell lines, however isoform 17, isoform 18 and isoform 19 are not detected in these cells.