



Recombinant Protein Technical Manual

Recombinant Human FGFR1/CD331 Protein (His & GST Tag)

RPES2983

Product Data:

Product SKU: RPES2983

Size: 20µg

Species: Human

Expression host: Baculovirus-Insect Cells

Uniprot: NP_075594.1

Protein Information:

Molecular Mass: 75 kDa

AP Molecular Mass: 75 kDa

Tag: N-His & GST

Bio-activity:

Purity: > 93 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.

Shipping: This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < -20°C.

Formulation: Supplied as sterile 50mM Tris, 100mM NaCl, pH 8.0, 20% glycerol, 1mM TCEP, 0.5mM PMSF

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: bFGF-R;BFGFR;CD331;CEK;FGFBR;FGFR;FLG;FLT-2;FLT2;HBGFR;HH2;HRTFDS;KAL2;N-SAM;OGD

Immunogen Information:

Sequence: Gly 311-Arg 731

Background:

FGFR1, also known as CD331, belongs to the fibroblast growth factor receptor subfamily where amino acid sequence is highly conserved between members and throughout evolution. FGFR family members differ from one another in their ligand affinities and tissue distribution. Fibroblast growth factors (FGFs) (FGF1 - 10 and 16 - 23) are mitogenic signaling molecules that have roles in angiogenesis, wound healing, cell migration, neural outgrowth and embryonic development. FGFs bind heparan sulfate glycosaminoglycans, which facilitates dimerization (activation) of FGF receptors. FGFR1 is a full-length representative protein consists of an extracellular region, composed of three immunoglobulin-like domains, a single hydrophobic membrane-spanning segment and a cytoplasmic tyrosine kinase domain. The extracellular portion of FGFR1 interacts with fibroblast growth factors, setting in motion a cascade of downstream signals, ultimately influencing mitogenesis and differentiation. This particular family member binds both acidic and basic fibroblast growth factors and is involved in limb induction. CD331 can be 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. Defects in FGFR1 are a cause of Pfeiffer syndrome , idiopathic hypogonadotropic hypogonadism , Kallmann syndrome type 2, osteoglophonic dysplasia and trigonocephaly non-syndromic.