# Recombinant Human FGFR1/CD331 Protein (His Tag)

Catalog Number: PKSH031506



Note: Centrifuge before opening to ensure complete recovery of vial contents.

### **Description**

Synonyms bFGF-R-1;BFGFR;CD331;CEK;FGFBR;FGFR-1;FLG;FLT-2;FLT2;HBGFR;HH2;

HRTFDS;KAL2;N-SAM;OGD

Species Human

Expression Host

Sequence

Met 1-Glu 285

Accession

NP\_075594.1

Calculated Molecular Weight

Observed molecular weight

Tag

HEK293 Cells

Met 1-Glu 285

NP\_075594.1

31.0 kDa

50-55 kDa

C-His

**Bioactivity** Measured by its ability to inhibit FGF acidic dependent proliferation of Balb/C 3T3

mouse fibroblasts. The ED50 for this effect is typically 0.1-0.6 µg/mL.

## **Properties**

**Purity** > 98 % as determined by reducing SDS-PAGE.

**Endotoxin** < 1.0 EU per μg of the protein as determined by the LAL method.

**Storage** Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to

-80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots

of reconstituted samples are stable at < -20°C for 3 months.

**Shipping** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation** Lyophilized from sterile PBS, pH 7.4

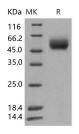
Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as

protectants before lyophilization.

Please refer to the specific buffer information in the printed manual.

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

### Data



> 98 % as determined by reducing SDS-PAGE.

## **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

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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.

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