Recombinant Protein Technical Manual

Recombinant Rat FGFR4/CD334 Protein (Fc Tag)(Active)

RPES1001

Product Data:

Product SKU: RPES1001

Size: 50µg

Species: Rat

Expression host: HEK293 Cells

Uniprot: Q498D6

Protein Information:

Molecular Mass:	66 kDa
AP Molecular Mass:	110 kDa
Tag:	C-Fc
Bio-activity:	1. Measured by its binding ability in a functional ELISA.2. Immobilized human FGF18 at 10 µg/mL (100 µl/well) can bind Rat FGFR4, The EC50 of Rat FGFR4 is 1.17 µg/mL.3. Immobilized mouse FGF18 at 10 µg/mL (100 µl/well) can bind Rat FGFR4, The EC50 of Rat FGFR4 is 0.44 µg/mL.4. Immobilized human bFGF at 10 µg/mL (100 µl/well) can bind Rat FGFR4, The EC50 of Rat FGFR4 is 0.163 µg/mL.
Purity:	> 90 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU per µg of the protein as determined by the LAL method
Storage:	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℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ 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
Reconstitution:	Please refer to the printed manual for detailed information.
Application:	Functional ELISA
Synonyms:	FGFR-4

Immunogen Information:

Sequence: Met 1-Asp 367

Background:

Fibroblast growth factor receptor 4 (FGFR4) also known as CD334 antigen or tyrosine kinase related to fibroblast growth factor receptor, is a member of the fibroblast growth factor receptor family, 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. A full-length representative protein would consist 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 FGFR4/CD334 interacts with fibroblast growth factors, setting in motion a cascade of downstream signals, ultimately influencing mitogenesis and differentiation. FGFR4/CD334 preferentially binds acidic fibroblast growth factor and, although its specific function is unknown, it is overexpressed in gynecological tumor samples, suggesting a role in breast and ovarian tumorigenesis. FGFR4/CD334 signaling is down-regulated by receptor internalization and degradation; MMP14 promotes internalization and degradation of FGFR4/CD334. Mutations in FGFR4/CD334 lead to constitutive kinase activation or impair normal FGFR4 inactivation lead to aberrant signaling.