Bioactive, Recombinant Human FGFR3 Protein Dimer, His-Avi Tag
Product Code: CSP-25131-03
For Research Use Only (RUO)

Protein Name
FGFR3

Alternate Name(s)
ACH, cluster of differentiation 333, CD333, CEK2, HSFGFR3EX, JTK4

Protein Construct
FGFR3 dimer protein contains a FGFR3 extracellular domain (UniProt# P22607) fused with a dimer motif followed by a tandem His-Avi tag at the C-terminus. Expressed in HEK293T cell line.

SDS-Page Molecular Weight
96 kDa. The migration range of the dimer protein with glycosylation under non-reducing conditions is ~190 kDa on SDS PAGE.

Shipping Conditions
Frozen Dry Ice

Expression Host
HEK293T

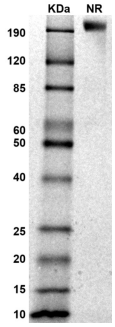
Purity
Greater than 90% dimer form as determined by SDS-PAGE under non-reducing condition

Amino Acid Range
E23-G375

Formulation
0.22µm filtered PBS, pH 7.4

Stability & Storage
-80^{0}C

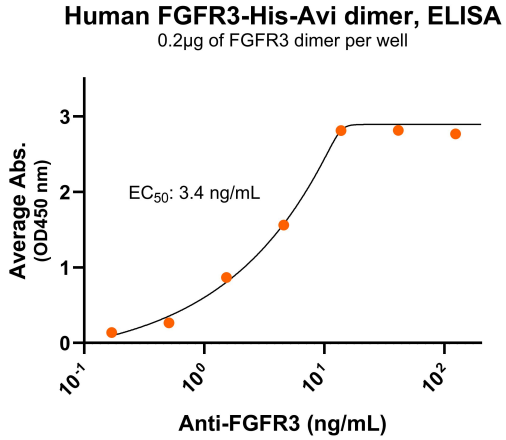
SDS-PAGE



MW: Molecular Weight marker reduced condition
NR: FGFR3 dimer under non-reduced condition

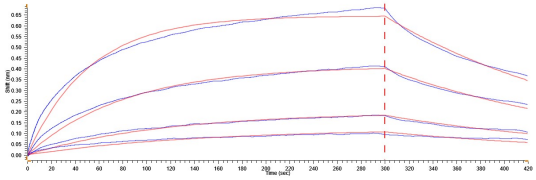
The migration range of the dimer protein with glycosylation under non-reducing conditions is ~190 kDa on SDS PAGE.

Bioactivity – Antibody Binding



Immobilized human FGFR3-His-Avi dimer protein (CSP-25131-03) at 2 μg/mL (100 μL/well) can bind anti-human FGFR3 monoclonal antibody with half maximal effective concentration (EC50) range of 1.7-6.7 ng/mL (QC tested).

Bioactivity – BLI



Human FGFR3 dimer protein, His-Avi tag (Cat. No. CSP-25131-03) on a NiNTA probe can bind human FGF-1 ligand with a KD of 138.5-554 nM as determined by BLI.

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Background

Human fibroblast growth factor receptor 3 (FGFR3) is a cell surface receptor belonging to the immunoglobulin superfamily and a transmembrane receptor tyrosine kinase (RTK) that belongs to the FGFR family. FGFR3 is also known as ACH, cluster of differentiation 333 (CD333), CEK2, HSFGFR3EX, and JTK4. FGFR3 contains an extracellular domain with three immunoglobulin-like (Ig-like) subdomains (D1, D2 and D3), followed by a transmembrane, and an intracellular domain. Dimerization of FGFRs is necessary for activation and they can homodimerize and heterodimerize in both the presence and absence of ligand. FGFRs bind fibroblast growth factors (FGFs) leading to phosphorylation and triggering signaling cascades. FGFR3 is involved in diseases including achondroplasia, hypochondroplasia, and bladder cancer. Therefore, a recombinant protein mimicking the FGFR3 dimer conformation can be critical for cancer therapeutic discovery.