Bioactive, Human FGFR2 Dimer, His-Avi Tag
Product Code: CSP-25130-03
For Research Use Only (RUO)

Protein Name
FGFR2

Alternate Name(s)
FGFR-2, BBDS, BEK, brefeldin A resistance factor 1, BFR-1, cluster of differentiation 332, CD332, CEK3, CFD1, ECT1, JWS, K-SAM, keratinocyte growth factor receptor, KGFR, TK14, TK25, fibroblast growth factor receptor 2

Protein Construct
FGFR2 dimer protein contains a FGFR2 extracellular domain (UniProt# P21802) fused with a proprietary dimer motif followed by a tandem His-Avi tag at the C-terminus. Expressed in HEK293T cell line.

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

Shipping Conditions
Frozen Dry Ice

Expression Host
HEK293T

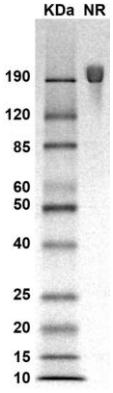
Purity
Greater than 90% dimer form as determined by SDS-PAGE under non-reducing condition

Amino Acid Range
R22-E377

Formulation
0.2µm filtered PBS, pH 7.4

Stability & Storage
-80^{0}C

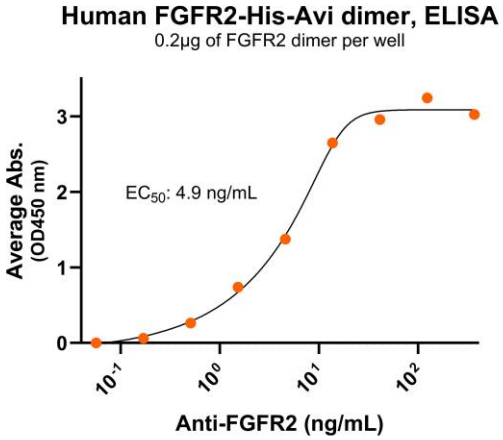
SDS-PAGE



MW: Molecular Weight marker reduced condition
NR: FGFR2 dimer under non-reduced condition

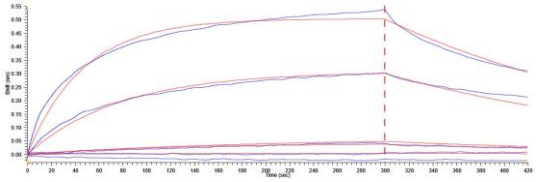
The migration range of the dimer protein with glycosylation under non-reducing condition is ~190 kDa on SDS PAGE.

Bioactivity – Antibody Binding



Immobilized human FGFR2-His-Avi dimer protein (CSP-25130-03) at 2 μg/mL (100 μL/well) can bind anti-human FGFR2 polyclonal antibody with half maximal effective concentration (EC50) range of 2.4-9.7 ng/mL (QC tested).

Bioactivity – BLI



Human FGFR2 dimer protein, His-Avi tag (Cat. No. CSP-25130-03) on a NiNTA probe can bind human FGF-1 with a KD of 90-360 nM as determined by BLI.

Background

Human fibroblast growth factor receptor 2 (FGFR2) is a cell surface receptor belonging to the immunoglobulin superfamily and a transmembrane receptor tyrosine kinase that belongs to the FGFR family. FGFR2 is also known as BBDS, BEK, brefeldin A resistance factor 1 (BFR-1), cluster of differentiation 332 (CD332), CEK3, CFD1, ECT1, JWS, K-SAM, keratinocyte growth factor receptor (KGFR), TK14, and TK25. FGFR2, a Type I transmembrane protein, 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. Mutations in FGFR2 cause pathological ligand-independent dimerization, leading to uncontrolled signaling in both developmental disorders and cancers. Mutations in the FGFR2 gene are the cause of several craniosynostosis syndromes and FGFR2 is involved in various forms of cancer including gastric cancer, breast cancer and lung cancer. Inhibition of FGFR2 activity offers a potential and promising approach to cancer therapy.