

Synonym

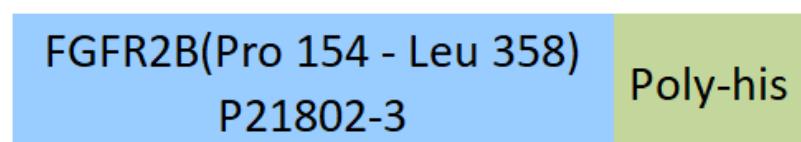
FGF R2 (IIIb), FGFR2B, FGFR2

Source

Human FGFR2 (IIIb), His Tag (FGB-H5223) is expressed from human 293 cells (HEK293). It contains AA Pro 154 - Leu 358 (Accession # [P21802-3](#)).

Predicted N-terminus: Pro 154

Molecular Characterization



[Other Tags and Version](#) [Biotin & Other Labeled Version](#)

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 24.8 kDa. The protein migrates as 38-55 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per μ g by the LAL method / rFC method.

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μ m filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

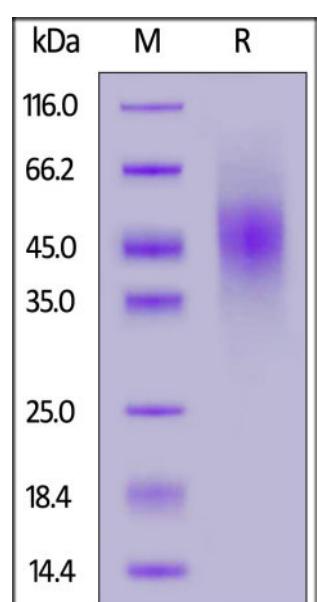
This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

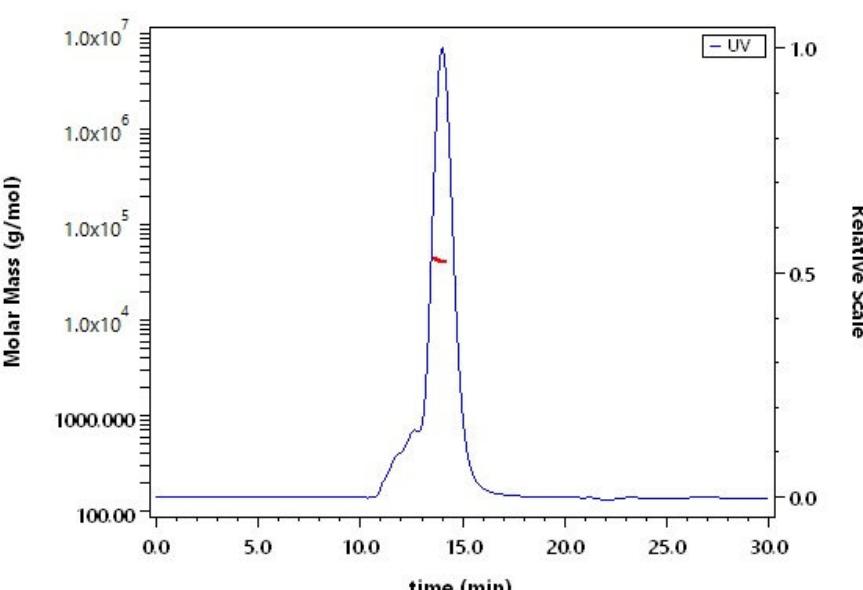
ACRO Quality Management System

- [QMS\(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE



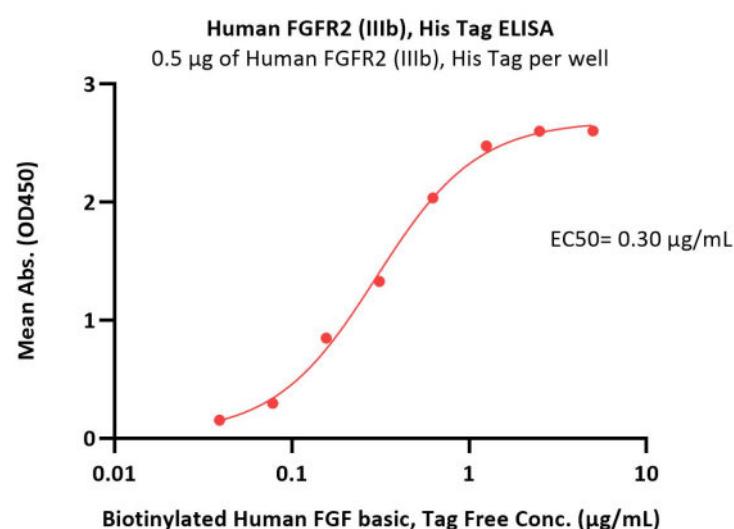
SEC-MALS



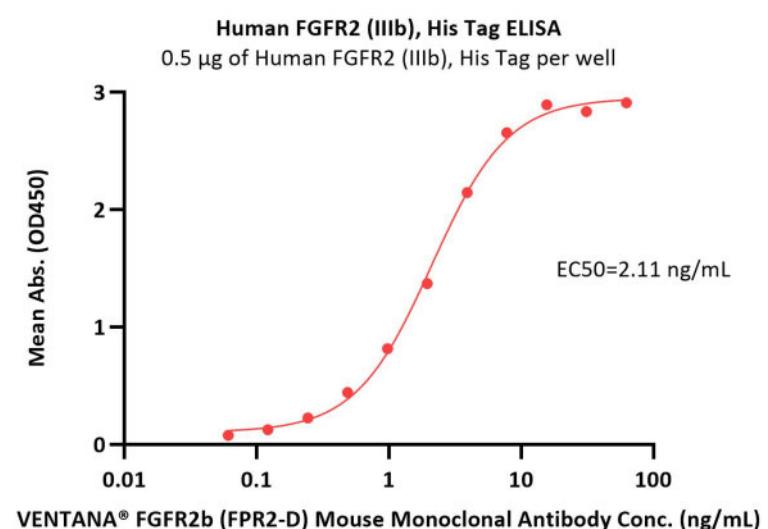
Human FGFR2 (IIIb), His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

The purity of Human FGFR2 (IIIb), His Tag (Cat. No. FGB-H5223) is more than 85% and the molecular weight of this protein is around 40-50 kDa verified by SEC-MALS.

Bioactivity-ELISA

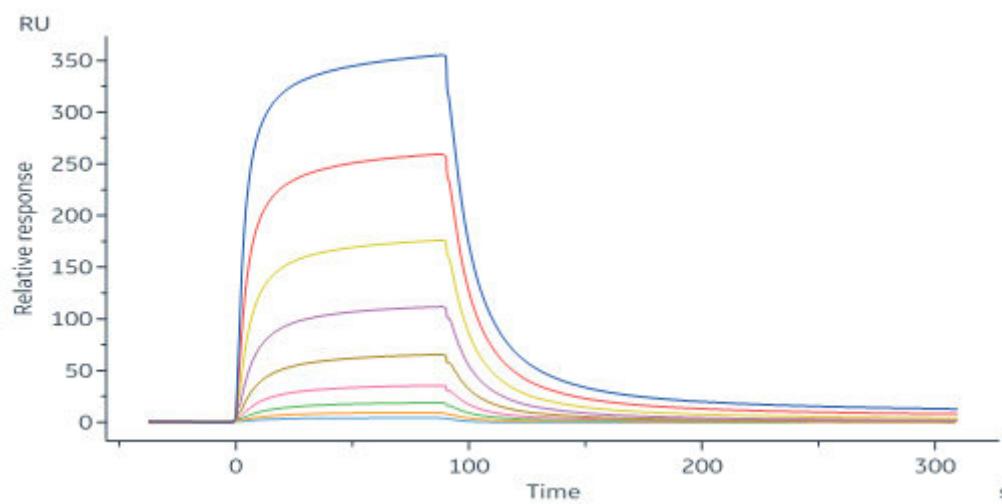


Immobilized Human FGFR2 (IIIb), His Tag (Cat. No. FGB-H5223) at 5 µg/mL (100 µL/well) can bind Biotinylated Human FGF basic, Tag Free with a linear range of 0.039-0.625 µg/mL (Routinely tested).



Immobilized Human FGFR2 (IIIb), His Tag (Cat. No. FGB-H5223) at 5 µg/mL (100 µL/well) can bind VENTANA® FGFR2b (FPR2-D) Mouse Monoclonal Antibody with a linear range of 0.06-4 ng/mL (Routinely tested).

Bioactivity-SPR



Biotinylated Human FGF-10, His, Avitag (Cat. No. FG0-H81Q7) immobilized on SA Chip can bind Human FGFR2 (IIIb), His Tag (Cat. No. FGB-H5223) with an affinity constant of 5.02 µM as determined in a SPR assay (Biacore 8K) (Routinely tested).

Background

Tyrosine-protein kinase that acts as cell-surface receptor for fibroblast growth factors and plays an essential role in the regulation of cell proliferation, differentiation, migration and apoptosis, and in the regulation of embryonic development. Required for normal embryonic patterning, trophoblast function, limb bud development, lung morphogenesis, osteogenesis and skin development. Plays an essential role in the regulation of osteoblast differentiation, proliferation and apoptosis, and is required for normal skeleton development. Promotes cell proliferation in keratinocytes and immature osteoblasts, but promotes apoptosis in differentiated osteoblasts. Phosphorylates PLCG1, FRS2 and PAK4. Ligand binding leads to the activation of several signaling cascades. Activation of PLCG1 leads to the production of the cellular signaling molecules diacylglycerol and inositol 1,4,5-trisphosphate. Phosphorylation of FRS2 triggers recruitment of GRB2, GAB1, PIK3R1 and SOS1, and mediates activation of RAS, MAPK1/ERK2, MAPK3/ERK1 and the MAP kinase signaling pathway, as well as of the AKT1 signaling pathway. FGFR2 signaling is down-regulated by ubiquitination, internalization and degradation. Mutations that lead to constitutive kinase activation or impair normal FGFR2 maturation, internalization and degradation lead to aberrant signaling. Over-expressed FGFR2 promotes activation of STAT1.

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