

DESCRIPTION

Source *E. coli*-derived human FGF-10 protein
Proprietary, engineered based on O15520.

SPECIFICATIONS

SDS-PAGE 19-23 kDa, under reducing conditions.

Activity Measured in a cell proliferation assay using Ba/F3 mouse pro B cells transfected with human FGF RIIb.
The ED₅₀ for this effect is 4.00-60.0 ng/mL.

Endotoxin Level <0.10 EU per 1 µg of the protein by the LAL method.

Purity >90%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

Formulation Lyophilized from a 0.2 µm filtered solution in MOPS, Na₂SO₄, EDTA and DTT with Trehalose. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution Reconstitute at 250 µg/mL in water.

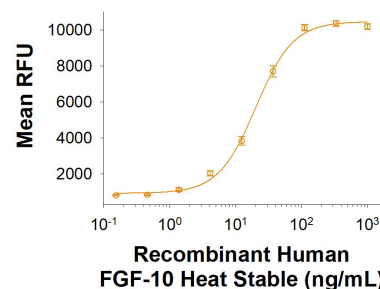
Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

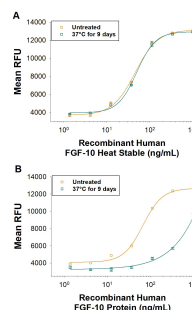
DATA

Bioactivity



Recombinant Human FGF-10 Heat Stable Protein Bioactivity. Bioactivity of Recombinant Human FGF-10 Heat Stable Protein (Catalog # BT-FGF10HS) was measured in a cell proliferation assay using Ba/F3 mouse pro B cells transfected with human FGF RIIb. The ED₅₀ for this effect is 4.00-60.0 ng/mL.

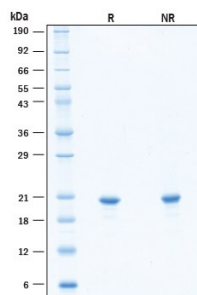
Bioactivity



Recombinant Human FGF-10 Heat Stable Bioactivity.

Recombinant Human FGF-10 protein induces proliferation of Ba/F3 mouse pro-B cells transfected with human FGFR2b. (A) Recombinant Human FGF-10 Heat Stable (Catalog # BT-FGF10HS) or (B) Recombinant Human FGF-10 (Catalog # 345-FG) were either untreated or incubated at 37°C for 9 days in media. The heat-stable (HS) FGF-10 retained similar bioactivity after incubation compared to the untreated HS protein, indicating that the HS protein has increased thermal stability. In contrast, the wild-type (WT) FGF-10 protein showed a significant loss of activity following incubation, suggesting less thermal stability.

SDS-PAGE



Recombinant Human FGF-10 Heat Stable Protein SDS-PAGE. 2 µg/lane of Recombinant Human FGF-10 Heat Stable Protein (Catalog # BT-FGF10HS) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 19-23 kDa, under reducing conditions.

BACKGROUND

Fibroblast Growth Factors including FGF-10 are known to be intrinsically unstable, and prone to unfold at 37°C, quickly rendering the growth factor inactive. Our de novo Heat Stable FGF-10 has been engineered for thermostability to maintain activity at 37°C for at least 15 days. Heat-stable FGF-10 can enhance the consistency and efficacy of cell culture or organoid development. Heat Stable FGF-10 maintains sequence similarity, with >95% sequence homology to native FGF-10, making FGF-10 Heat Stable growth factor an easy replacement for culture.