

DESCRIPTION

Source *E. coli*-derived
Glu28-Ala207, with a N-terminal Met
Accession # O76093

N-terminal Sequence Analysis Met

Predicted Molecular Mass 21 kDa

SPECIFICATIONS

SDS-PAGE 19-24 kDa, reducing conditions

Activity Measured in a cell proliferation assay using BaF3 mouse pro-B cells transfected with human FGF RIIIc. The ED₅₀ for this effect is typically 4-24 ng/mL

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

Purity >95%, 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 Trehalose. See Certificate of Analysis for details.

PREPARATION AND STORAGE

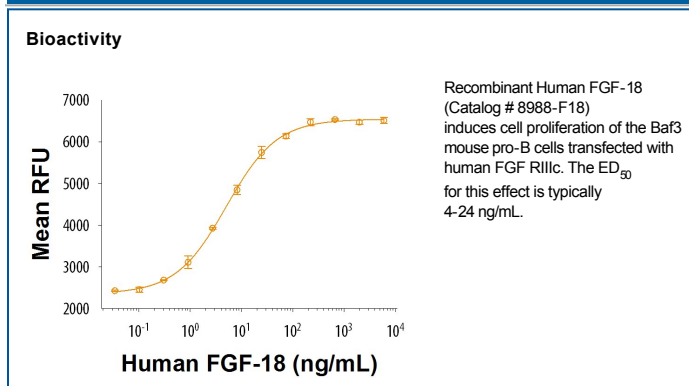
Reconstitution Reconstitute at 500 µg/mL in water.

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



BACKGROUND

Fibroblast Growth Factor 18 (FGF-18) is a 20 kDa protein that plays an important role in skeletal development and bone homeostasis (1). Mature human FGF-18 shares 99% amino acid sequence identity with mouse and rat FGF-18 (2). It is expressed in embryonic somites and the neural fold (3), adult lung (2), cerebellar and hippocampal neurons (4), hair follicle root sheath cells (5), and osteogenic mesenchymal cells (6). FGF-18 binds to FGF R2c, FGF R3c (4, 7) as well as the Golgi protein GLG1 (8) and induces the proliferation of astrocytes and microglia, vascular endothelial cells, dermal fibroblasts, papilla cells, and keratinocytes (4, 5, 9). FGF-18 is required for normal skeletal development (6). It recruits osteoclasts and osteoblasts to the growth plate, promotes osteoclast formation and function, inhibits osteoblast differentiation, promotes skeletal vascularization, and induces chondrocyte hypertrophy and cartilage matrix formation (6, 7, 10, 11).

References:

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