Growth Factors

Recombinant FGF-2 STAB®

Thermostable Basic Fibroblast Growth Factor

50µg
1000 µg

In partnership with

SCIENTIFIC LABORATORY SUPPLIES

CORE BIOGENESIS

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More info and related products at
www.scientificlabs.co.uk

Product Description

FGF-2-STAB® is a stabilized growth factor that offers a novel way to grow FGF-2-dependent cell cultures more efficiently, with fewer media changes. FGF2-STAB® retains full biological activity even after twenty days at 37°C. The stable level of FGF-2 in culture allows for a more homogenous, undifferentiated stem cell culture, while saving researchers valuable time and money because repeated supplementation with FGF-2 and a daily medium change is not required. **Core Biogenesis FGF-2 STAB® is the 154 aa mature domain of FGF-2** with nine amino acid substitutions to enhance stability without impacting bioactivity developed by Dvorak et al. 2018. This increases the functional half-life of the protein from <10 h (wild-type) to >7 days (FGF2-STAB®).

Product Information

Alternative Names:	FGF-2 G3, bFGF STAB, Thermostable FGF-2.
Accession Number:	P09038
Amino Acid Sequence:	AAGSITTLPALPEDGGSGAF PPGHFKDPKRLYCKNGGFFLRIHPDGRVDG VREKSDPHIKLQLQAEERGVVSIKGVCANRYLAMKEDGRLLASKCVTDEC FFFERLESNNYNTYRSRKYTSWYVALKRTGQYKLGSKTGPGQKAILFLPMSAKS
Molecular mass:	around 19.0kDA.
Origin:	Plant seeds of *Camelina Sativa*.
Species:	Engineered sequence.
Similarity:	Human (99%), Bovine (99%), Porcine (99%), Mouse (94%).

Product Specifications

Purity:	≥ 95% measured by SDS page.
Bioactivity:	The specific activity is EC5O 0.5-1.0ng/ml. Determined by the ability to promote the proliferation of NIH/3T3 cells cultured in adherent condition.
Formulation:	Solution in PBS/Lyophilized.
Endotoxin level:	Endotoxin-free. Below level of detection ≤ 0.005ng/µg (≤ 0.005EU/ug of protein) as determined by Limulus Amebocyte Lysate assay.
Animal Component:	Animal-derived Component Free. Core Biogenesis strictly guarantees that our recombinant proteins are not produced with or contain any components of animal origin.

Product Use & Storage

1

Add Reconstitution Buffer
Recommended to reconstitute in sterile water for injection to at least 0.1mg/mL to allow for maximum protein recovery

2

Wait
Allow your protein to fully dissolve and get reconstituted for 5 to 10´ at room temperature.

3

Mix
Gently resuspend by injecting up and down 10 times the content from the vial to the syringe. Avoid foaming and do not vortex.

4

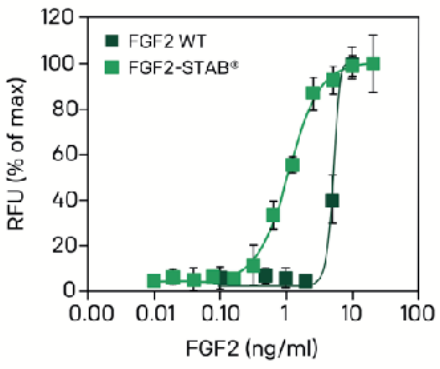
Aliquot
Prepare single use aliquots in tubes. Be sure to label your aliquots with the growth factor type, lot and date.

Protein is stable as supplied at at -20 ° C to -80°C

Reconstituted protein can be conserved frozen at -20° or -80°C. *See batch documentation for specific expiration date.

Product Data

Bioactivity



Comparison of FGF2-STAB® with human FGF-2 wild-type revealed that after 48-hour incubation at 37°C the wild-type has lower capacity to promote 3T3 cell proliferation than engineered FGF2-STAB®. FGF2-STAB® exhibited an ED50 as much as 5-fold lower than the wild-type protein, demonstrating that FGF2-STAB® has increased thermal stability. The ED50 for FGF2-STAB®, i.e., the concentration of FGF2-STAB® that produces one-half the maximal response, as determined in a proliferation assay of NIH/3T3 cells, is 0.6-1.1 ng/ml.

SDS-PAGE

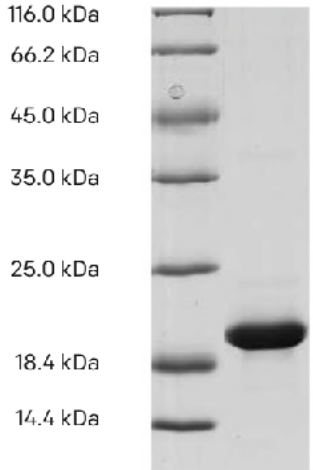


Image of SDS-PAGE gel showing purity of isolated FGF2-STAB®. Protein marker: 116, 66, 45, 35, 25, 18, 14 kDa.