

Product Description

FGF-2-TOP[®] (Thermostability Optimized) -formerly 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-TOP[®] retains full biological activity even after seven days at 37°C. The stable levels 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 TOP**[®] **is the 155 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-TOP[®]) in cell culture conditions at 37°C.

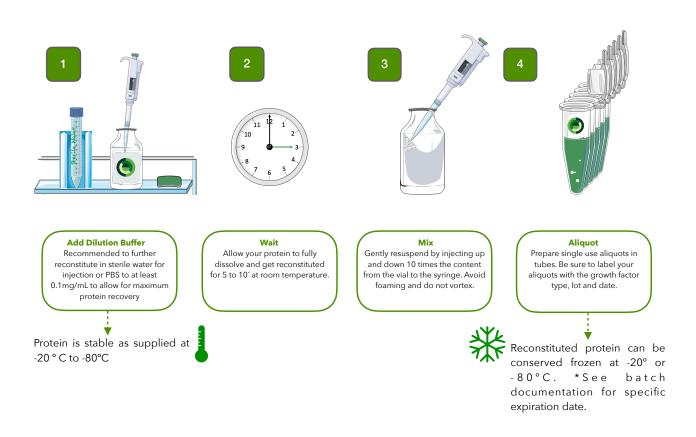
Product Information

FGF-2 G3, bFGF STAB, Thermostable FGF-2.
155 amino acids with 9 aa point mutations from the wild-type FGF-2.
Tag-free. Original sequence accession number: P09038
Estimated 17.4 kDA.
Plant-derived.
Engineered sequence.
Species neutral. Reactivity with Human, Bovine, Porcine and Mouse.

Product Specifications

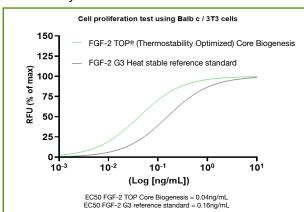
Purity:	\ge 90% measured by SDS page resolved under reduced (R) conditions.
Bioactivity:	The specific activity corresponds to generally EC5O \leq 1 ng/ml.
	Determined by the ability to promote the proliferation of NIH/3T3 cells
	cultured in adherent condition.
Formulation:	Solution in PBS or Lyophilized.
Endotoxin level:	Recombinant protein expressed in plant system, free of bacterial
	endotoxins.
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



Product Data

Bioactivity



Comparison of FGF2-TOP® from Core Biogenesis (plant-expressed) with human FGF-2 STAB (G3) reference standard (*e.coli* expressed) revealed that after 5 days of culturing 3T3 at 37°C, cell proliferation FGF2-TOP® from Core Biogenesis is higher than the reference standard. FGF2-TOP® from Core Biogenesis exhibited an EC50 value of 0.04ng/mL as compared to the *e.coli* derived product, corresponding to EC50 0.16ng/mL. Results indicate the thermal stability promoting high bioactivity after several days in culture without media change.

SDS-PAGE

