FGF-2 STAB®

Thermostabilized Growth Factor
Ideal for Stem Cell Production

FGF-2 STAB® a novel, thermostabilized growth factor that allows you to grow FGF-2-dependent cell cultures more efficiently with fewer media changes.

About FGF-2 STAB®

Through novel protein engineering, FGF-2 STAB® offers an increased half-life and therefore fewer feedings required compared to the wild-type growth factors. It is significantly more tolerant of heat while maintaining full bioactivity, leading to improved homogeneity in your cell growth.

Here are a few of the applications that can benefit from FGF-2 STAB®:

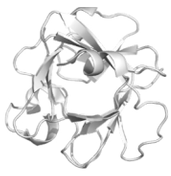
iPSCs

ORGANOIDS PRODUCTION

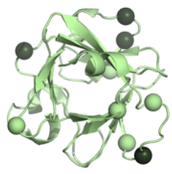
NSCs

Bioactivity Preserved, Improved Cell Response

With FGF-2 STAB®, full bioactivity of the FGF-2 is preserved in a stable protein conformation. Improved cell response is seen compared to wild-type FGF-2.



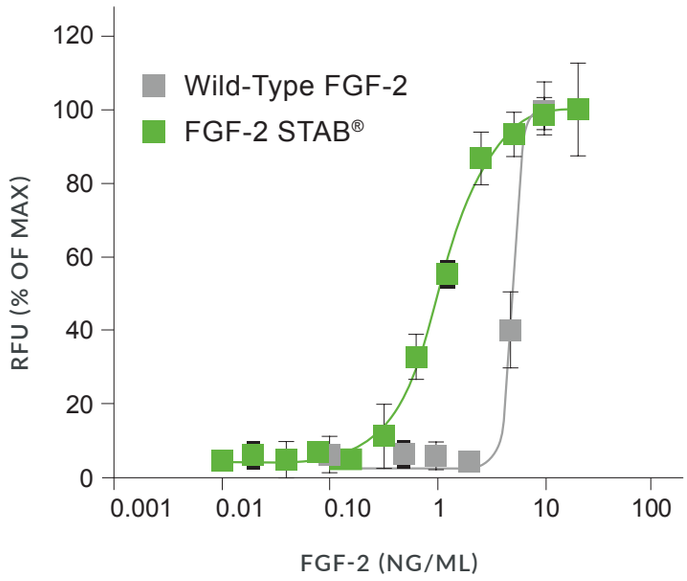
WILD-TYPE FGF-2



FGF-2 STAB®

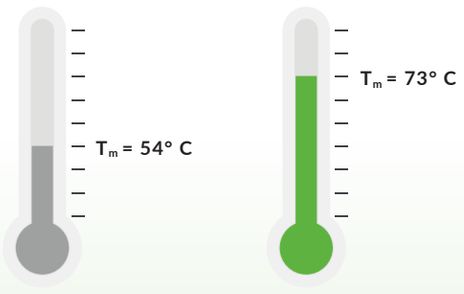
Engineered with a novel nine amino acid substitution to improve stability

3T3 NIH PROLIFERATION WITH FGF-2 STAB®



Thermostability Leading to Increased Half-Life + Protein Stability

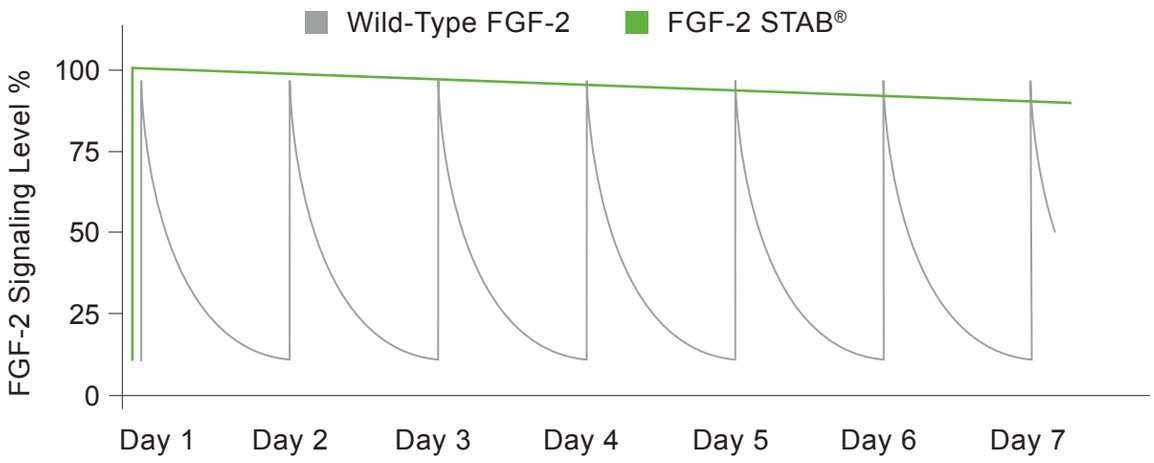
Thanks to the novel nine amino acid substitution, the heat stability of FGF-2 STAB® is increased compared to wild-type FGF-2. This results in an increase in half-life under cell culture conditions to 37°C—improving protein stability 10X compared to wild-type.



WILD-TYPE FGF-2 **FGF-2 STAB®**

Protein Stability Leading to Cell Growth Uniformity

Historically, researchers and manufacturers have had to maintain a very strict daily feeding schedule during pluripotent stem cell culture to avoid spontaneous differentiation that would degrade the quality of the culture. By nature of its increased half-life and protein stability, FGF-2 STAB® presents a constant exposure of stable growth factor to the cells, affording the developer a much more streamlined feeding schedule and ultimately a more homogenous makeup of your desired phenotype in the final stem cell population.

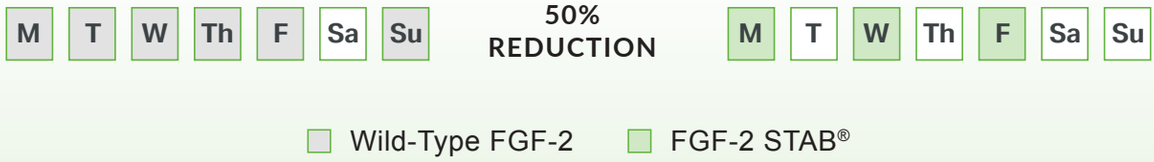


- High Purity
- Animal Component-Free
- 10x Longer Half-Life
- Preserved Bioactivity
- Improved Cell Culture Homogeneity
- Weekend-Free iPSC Culture

Reduced Costs and “Weekend-Free” Feeding

Realize tangible benefits of FGF-2 STAB® protein stability: significant reductions in the amount of media required to feed cells, as well as reductions in the number of feedings, saving labor costs and obviating the need for inconvenient weekend feedings.

EXAMPLE iPSC FEEDING SCHEDULE



Available for Research Use + cGMP Use

FGF-2 STAB® is available in both Research Use Only and cGMP grades. To ensure seamless scale-up, we have ensured that bioactivity and product performance of both grades are equivalent, as both grades are derived from the same molecule. The cGMP version is augmented with additional quality control testing and documentation to satisfy cGMP cell culture requirements.

PRODUCT SPECIFICATIONS	FGF-2 STAB® (RUO)	FGF-2 STAB® (cGMP)
IDENTITY	Molecular Weight	Mass Spectrometry
BIOACTIVITY	EC50	EC50 + Specific Activity – International Units, when available
PURITY	>95% by SDS-PAGE	>95-97% by UPLC
STERILITY	Sterile filtered 0.2 µm + bioburden testing	Sterile USP <71> and Ph Eur. 2.6.7
ENDOTOXIN	Below level of detection LAL assay	USP <85> Ph.Eur. 2.6.14
MYCOPLASMA	N/A	Negative
HOST CELL DNA / PROTEIN CONTENT	N/A	Annex tested from Master Lot
ANIMAL-FREE	ADCF	ADCF
LOT-TO-LOT CONSISTENCY	N/A	Yes
REGULATORY COMPLIANCE	ISO9001	ISO9001, USP <1043>, Ph.Eur 5.2.12
REGULATORY SUPPORT	N/A	Yes, on-site audits, change notifications, additional testing and master files

Core Biogenesis has been granted global use of Enantis' patented FGF-2 STAB® in areas of research, cellular agriculture and cell therapy.

About Core Biogenesis

Core Biogenesis employs a novel green bioproduction platform to express recombinant proteins from plants. Their animal-free growth factors and cytokines contribute to more cost-effective and commercially-viable cell expansion applications including 3D cell culture, organoids production, cell therapy, and cellular agriculture.

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