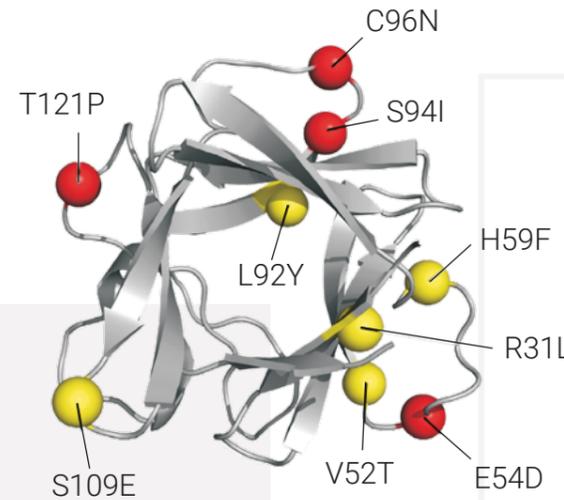


FGF2-G3

unprecedented stability • uncompromised action



why Qkine FGF2-G3

- **compare directly with your existing FGF 2**
For the first time, a 145 aa FGF-G3 (Qk052) is also available so you can compare directly with your existing FGF 2.
- **no His tag here!**
We don't like His tags. They increase contaminants, introduce scientific uncertainty and lead to issues when scaling or translating discoveries.
- **high purity and animal-free**
All our proteins are animal-free with extensive biochemical and bioactivity data for every lot. Manufactured in our ISO9001: 2015 certified facility.

tunable growth factors - the future of scalable stem cell culture

what is FGF2-G3 (FGF2-STAB®)?

FGF 2 is essential in stem cell media but inherently unstable

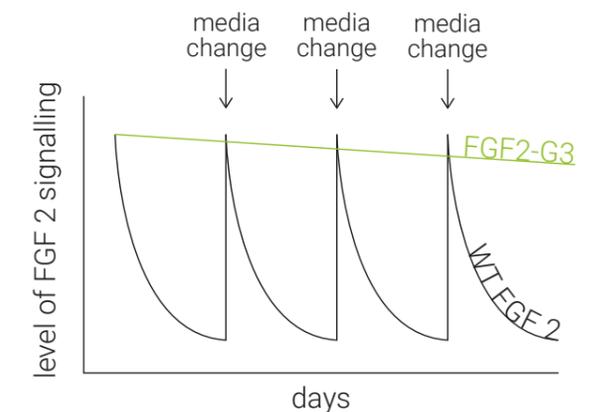
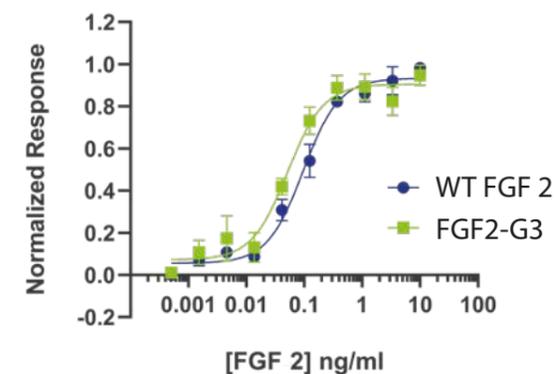
- FGF 2 is prone to proteolytic degradation and aggregation in solution and in media
- in culture, the half-life of FGF 2 is <10 hours, with reports as low as 40 minutes
- this contributes to the need for frequent media changes and creates challenges in improving homogeneity during stem cell proliferation and subsequent differentiation

FGF2-G3 is a hyperstable form of FGF 2 with the same bioactivity

- FGF2-G3 contains an optimal set of nine amino acid substitutions that stabilize FGF 2 without affecting FGF receptor binding
- functional half-life in culture is increased to >20 days

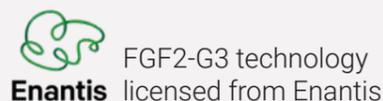
enables highly homogeneous iPSC and hESC culture

- core ingredient in B8 weekend-free media
- facilitates optimisation of protocols for homogeneous iPSC culture and efficient differentiation



key papers

- FGF2-G3 was developed by Dvorak et al., 2018. *Biotechnology and Bioengineering*
- B8 media protocol established by Kuo et al., 2020. *Stem Cell Reports*
- updated in Lyra-Leite et al., 2021. *STAR Protocols*
- review of FGF 2 stabilization by Benington et al., 2020. *Pharmaceutics*



B8 growth factor cocktail

a recipe for low cost, weekend-free iPSC media



40µg/L FGF2-G3 (Qk053)
0.1µg/L NRG 1 (Qk0045)
0.1µg/L TGFβ1 PLUS (Qk010)
Insulin (or 1ng/L IGF 1 LR3 Qk041)

qkine.com/product/b8

how is Qkine improving growth factors

- **animal-free**
Unmatched quality and reliability. All our proteins are made in a dedicated animal-free laboratory in Cambridge, UK.
- **total-transparency**
Know what you're giving your cells. Stringent purity and bioactivity data for all proteins.
- **protein innovation**
Solving stem cell culture challenges with optimized forms and animal-free firsts.