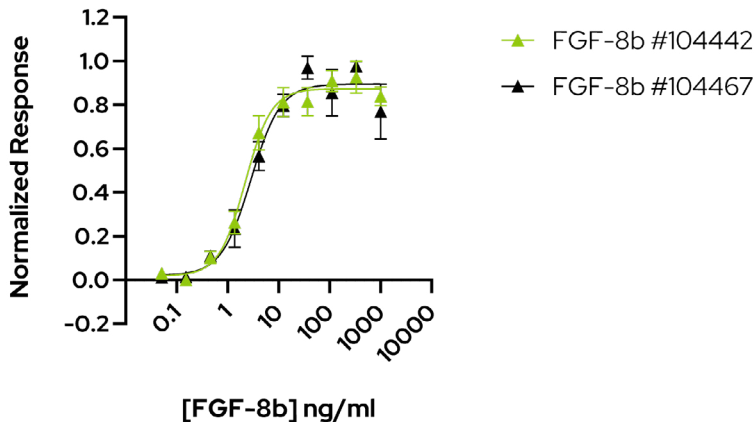


# FGF-8b protein has exceptional lot-to-lot consistency



Quantitative luciferase reporter assay shows that both batches of FGF-8b have a consistent EC50 of 2.2 ng/ml and 2.9 ng/ml, respectively (0.1 pM and 0.13 pM). Data from Qk057 lot #104442 and #104467.

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## Introduction:

Fibroblast growth factor 8b (FGF-8b) is a spliced form of FGF-8, a member of the FGF family. FGF-8b is involved in the regulation of embryogenesis and is commonly used for the differentiation of induced pluripotent stem cells into neural cell types and for brain organoid cultures.

It is crucial to have high purity growth factors to ensure stem cell cultures are reproducible and physiologically relevant. Growth factors developed in an animal-free expression system have better lot-to-lot consistency and less risk of endogenous contamination than animal-derived proteins. Qkine developed a carrier-free and tag-free FGF-8b expressed in *E. coli* for exceptionally high lot-to-lot consistency.

## Method:

The bioactivity of different lots of FGF-8b was determined using the Promega serum response element luciferase reporter assay in HEK293T cells. Cells were treated in triplicate with a serial dilution of FGF-8b for 3 hours. Firefly luciferase activity was measured and normalized to the control Renilla luciferase activity.

## Results and conclusion:

The bioactivity comparison between different lots of FGF-8b protein expressed in *E. coli* showed they both have a highly similar EC50 value. The exceptional lot-to-lot consistency of FGF-8b makes this bioactive protein suitable for the reproducible culture of neural stem cells and other FGF-8b-dependent applications.