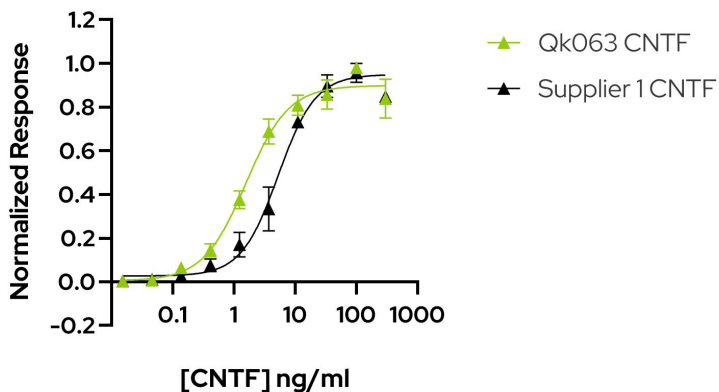


## Highly bioactive, animal-free CNTF



Quantitative luciferase reporter assay shows Qkine CNTF (Qk063, green) has a higher bioactivity with an EC<sub>50</sub> of 1.57 ng/ml (69 pM) compared to alternative CNTF (Supplier 1, black) with an EC<sub>50</sub> of 5.29 ng/ml (232 pM). Data for Qk063 lot #204520.

TNqK063-091123-v1.3

### Introduction:

Ciliary Neurotrophic Factor (CNTF) is a member of the IL-6 family of cytokines. CNTF plays a crucial role in regulating the development of the nervous system and is involved in the differentiation and maintenance of various neurons, glial cells, and retinal cells. For stem cell cultures, it is crucial to use reliable, high-quality recombinant proteins to optimize growth and differentiation and maintain cellular integrity and phenotype. Animal-free growth factors are preferable as they have higher lot-to-lot consistency and eliminate contamination from animal-derived ingredients. This technote demonstrates that Qkine CNTF is more bioactive than a major alternative supplier.

### Method:

The bioactivity of Qk06 CNTF and bacterial-expressed CNTF from an alternative supplier was determined using the CNTF-responsive firefly luciferase reporter assay. HEK293T cells were treated in triplicate with a serial dilution of CNTF overnight. Firefly luciferase activity is measured and normalized to the control Renilla luciferase activity.

### Results:

The bioactivity comparison demonstrates that Qkine CNTF has a 3-fold lower EC<sub>50</sub> when compared to a major alternative supplier in our reporter assay. Qkine CNTF is highly pure, potent, and reliable for reproducible neural cell culture and CNTF-dependent applications.

Qkine CNTF and all Qkine recombinant proteins come with a Bioactivity Guarantee, which guarantees our proteins to be reproducibly bioactive in your cultures. To learn more or to purchase Qkine animal-free recombinant proteins, visit [qkine.com](http://qkine.com)