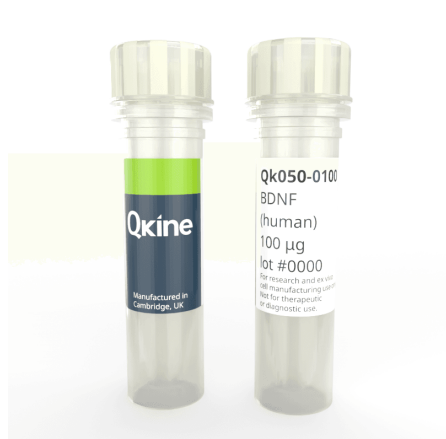


## Recombinant human BDNF protein (Qk050)



**Type:** Stem cells

**Available for purchase:** Unit Size (µg): 25, 50, 100, 500, 1000

Buy online with secure credit card or purchase order.

[View this product and buy online](#)

### Product Information

Brain-derived neurotrophic factor (BDNF) is a member of [neurotrophin family](#) and plays a crucial role in neural development, maintenance, and function. It stimulates neurogenesis and is also a major regulator of synaptic plasticity and neuroprotection. It is used to maintain neurons and differentiate and mature human pluripotent stem cell-derived neural progenitors to cortical and motor neurons and cortical organoids.

Recombinant human BDNF protein has a molecular weight of 14 kDa. This protein is [animal origin-free](#), carrier-free, tag-free, and non-glycosylated to ensure its purity with exceptional lot-to-lot consistency. Qk050 is suitable for the culture of reproducible and high-quality cortical and motor neurons and cortical [organoids](#).

**Qkine BDNF is also available as [cell therapy grade](#) with extended quality testing and documentation - [Qk050-CTG](#)**

### Alternative protein names

brain-derived neurotrophic factor, abrineurin, Qk50

### Molecular weight

14 kDa

### Protein Uniprot number

High purity human BDNF protein (Uniprot: P23560)

### Species reactivity

- human
- species similarity:
- mouse - 99%
- rat - 100%
- bovine - 100%
- porcine - 100%

### **Product Information**

- >98%, by SDS-PAGE quantitative densitometry
- Expressed in *E. coli*
- Animal origin-free (AOF) and carrier protein-free
- Manufactured in our Cambridge, UK laboratories
- Lyophilized from acetonitrile, TFA

### **Reconstitution instructions**

- Resuspend in sterile-filtered water at >50 µg/ml

### **Featured applications**

- Differentiation of midbrain dopaminergic neurons
- Differentiation of iPSC derived neural progenitors to neurons
- Neural organoid growth and differentiation
- Generation of iPSC-derived midbrain organoids
- Neural differentiation from pluripotent stem cells

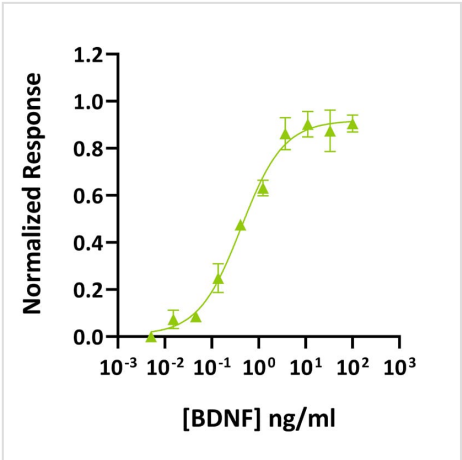
### **Further quality assays**

- Mass spectrometry: single species with expected mass
- Recovery from stock vial: >95%
- Endotoxin: <0.05 EU/µg protein

# Scientific Information

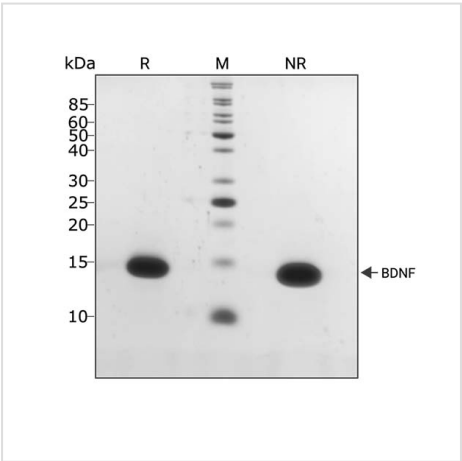
## Bioactivity

Recombinant BDNF activity was determined using a NFAT-luciferase reporter assay in transfected HEK293T cells also expressing TrkB. EC50 = 0.58 ng/ml (41 pM). Cells are treated in triplicate with a serial dilution of BDNF for 6 hours. Firefly luciferase activity is measured and normalized to the control Renilla luciferase activity. Data from Qk050 lot #104465.



## Purity

Qk050 migrates as a single band at 14 kDa in non-reducing (NR) conditions and upon reduction (R). No contaminating protein bands are visible. Purified recombinant protein (3 µg) was resolved using 15% w/v SDS-PAGE in reduced (+β-mercaptoethanol, R) and non-reduced (NR) conditions and stained with Coomassie Brilliant Blue R250. Data from Qk050 batch #104346.



Original product page: <https://qkine.com/product/recombinant-human-bdnf-protein-qk050/>

PDF generated: 12 September 2026

Copyright © 2026 by Qkine Ltd. All rights reserved including graphics and images.