

# Recombinant Human/Mouse/Rat BDNF Protein

Catalog No.: RP01243

Recombinant

2 Publications

## Sequence Information

Species	Gene ID	Swiss Prot
Human, Mouse, Rat	627	P23560-1

### Tags

C-His

### Synonyms

ANON2; BULN2; BDNF; BULN2

## Product Information

Source	Purification
<i>E. coli</i>	≥ 95 % as determined by SDS-PAGE; ≥ 95 % as determined by HPLC.

Calculated MW	Observed MW
14.35 kDa	17 kDa

### Endotoxin

&lt; 1 EU/μg of the protein by LAL method.

### Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Contact us for customized product form or formulation.

### Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Contact

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## Background

Brain-derived neurotrophic factor (BDNF) is a member of the nerve growth factor family. The neurotrophin family is comprised of at least four proteins including NGF, BDNF, NT-3, and NT-4/5. These secreted cytokines are synthesized as prepropeptides that are proteolytically processed to generate the mature proteins. BDNF cDNA encodes a 247 amino acid residue precursor protein with a signal peptide and a proprotein that are cleaved to yield the 119 amino acid residue mature BDNF. The amino acid sequence of mature BDNF is identical in all mammals examined. BDNF binds with high affinity and specifically activates the TrkB tyrosine kinase receptor.

## Basic Information

### Description

Recombinant Human/Mouse/Rat BDNF Protein is produced by *E. coli* expression system. The target protein is expressed with sequence (His129-Arg247) of human BDNF (Accession #NP\_733929.1.) fused with an initial Met at the N-terminus and a 6×His tag at the C-terminus.

### Bio-Activity

1. Immobilized Recombinant Human/Mouse/Rat BDNF Protein at 5 μg/mL (100 μL/well) can bind Recombinant Human TrkB with a linear range of 0.38-1.14 μg/mL. 2. Immobilized Recombinant Human/Mouse/Rat BDNF Protein at 1 μg/mL (100 μL/well) can bind BDNF Rabbit mAb with a linear range of 0.4-2.15 ng/mL. 3. Immobilized Recombinant Human TrkB at 2 μg/mL (100 μL/well) can bind Recombinant Human BDNF with a linear range of 1.95-258 ng/mL.

### Shipping

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

### Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80°C up to 1 year from the date of receipt.

After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

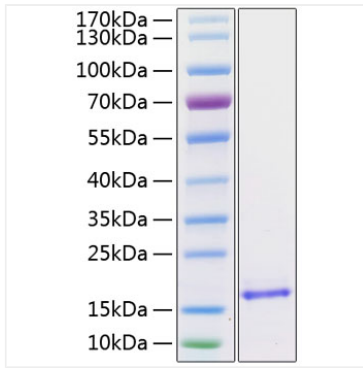
Avoid repeated freeze/thaw cycles.

### Operational Notes

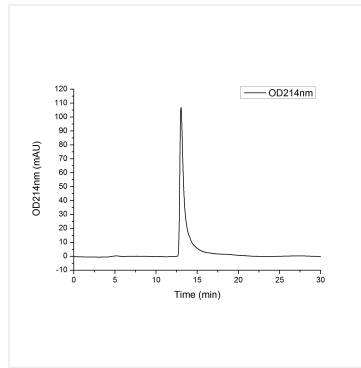
For your safety and health, please wear a lab coat and disposable gloves for handling.



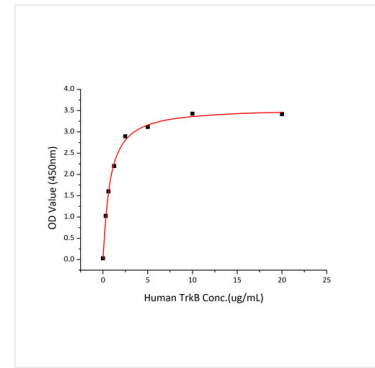
## Validation Data



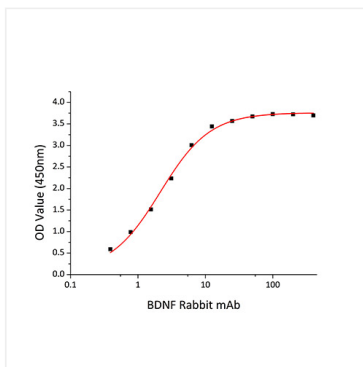
Recombinant Human/Mouse/Rat BDNF Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



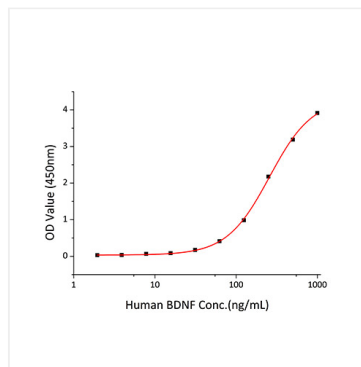
The purity of Recombinant Human/Mouse/Rat BDNF Protein (Cat.RP01243) was greater than 95% as determined by SEC-HPLC.



Immobilized Recombinant Human/Mouse/Rat BDNF Protein at 5 $\mu$ g/mL (100  $\mu$ L/well) can bind Recombinant Human TrkB with a linear range of 0.38-1.14  $\mu$ g/mL.



Immobilized Recombinant Human/Mouse/Rat BDNF Protein at 1 $\mu$ g/mL (100  $\mu$ L/well) can bind BDNF Rabbit mAb with a linear range of 0.4-2.15ng/mL.



Immobilized Recombinant Human TrkB at 2 $\mu$ g/mL (100  $\mu$ L/well) can bind Recombinant Human BDNF with a linear range of 1.95-258ng/mL.