

## BACKGROUND

Brain Derived Neurotrophic Factor, or BDNF, is a nerve growth factor that supports neuron growth and survival. BDNF shares identical domains with two other neurotrophic factors known as,  $\beta$ -NGF and NT-3 (neurotrophin-3). BDNF binds with low affinity to a receptor known as LNGFR, which also binds NGF and NT-3, but mediates survival function by signaling through a high affinity receptor known as gp145/TrkB. Human, mouse, rat and pig BDNF are all cross-reactive.

Recombinant human BDNF is a non-glycosylated homodimer containing two 119 amino acid chains, having a total molecular mass of 27 kDa.

### Alternative Names:

None

### Amino Acid Sequence:

MHSDPARRGE LSVCD SISEW VTAADKK TAV DMSGCTVTVL  
 EKPVPSKGQL KQYFYETKCN PMGYTKEGCR GIDKRHWSNQ  
 CTTTQS YVRA LTMDSKKRIG WRFIRIDTSC VCTLT IKRGR

## TECHNICAL INFORMATION

### Source:

*E.coli*

### Physical Appearance:

Sterile Filtered white lyophilized (freeze-dried) powder.

### Formulation:

Recombinant human BDNF is lyophilized with no additives.

### Stability:

Lyophilized product is very stable at -20°C. Reconstituted material should be aliquoted and frozen at -20°C. It is recommended that a carrier protein (0.1% HSA or BSA) is added for long term storage.

### Reconstitution:

Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1 mg/ml, which can be further diluted into other aqueous solutions.

### Protein Content and Purity determined by:

- UV spectroscopy at 280 nm
- RP-HPLC calibrated against a known standard
- Quantitation against a known standard via reducing and non-reducing SDS-PAGE gels.

### Endotoxin Level:

Endotoxin level, as measured by LAL analysis, is <0.01ng/ug or <0.1EU/ug.

### Biological Activity:

The activity is calculated by the dose-dependent proliferation of C6 cells and is typically between 0.5-1.5 ug/mL.

*Products are for research use only. They are not intended for human, animal, or diagnostic applications.*

