

## Recombinant Human Brain-derived Neurotrophic Factor (rh BDNF)

**Synonyms:** MGC34632

**Introduction:** BDNF promotes the survival of neuronal populations that are all located either in the central nervous system or directly connected to it. BDNF is a major regulator of synaptic transmission and plasticity at adult synapses in many regions of the CNS. The versatility of BDNF is emphasized by its contribution to a range of adaptive neuronal responses including long-term potentiation (LTP), long-term depression (LTD), certain forms of short-term synaptic plasticity, as well as homeostatic regulation of intrinsic neuronal excitability.

**Description:** Recombinant Human BDNF produced in E. coli is a homodimer, non-glycosylated polypeptide chain containing 2x 119 amino acids (and N-terminal Met) and having a total molecular mass of 27 kDa. BDNF is purified by proprietary chromatographic techniques.

**Source:** *Escherichia coli*

**Physical Appearance:** Sterile filtered white lyophilized (freeze-dried) powder.

**Formulation:** Lyophilized without any additives.  
The aliquots of 1 µg and 2 µg contain Trehalose 5% (w/vol) for better recovery

**Solubility:** It is recommended to reconstitute the lyophilized rh BDNF in sterile H<sub>2</sub>O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

**Stability:** Lyophilized rh BDNF although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution rh BDNF should be stored at 4° C between 2-7 days and for future use below -18° C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

**Purity:** Greater than 97.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

**Amino Acid Sequence:** MHSDPARRGE LSVCDISEW VTAADKKTAV DMSGGTVTVL EKVPVSKGQL KQYFYETKCN PMGYTKEGCR GIDKRHWNSQ CRTTQSYVRA LTMDSKKRIG WRFIRIDTSC VCTLTIKRGR.

**Biological Activity:** The ED<sub>50</sub>, as determined by the dose-dependant induction of C6 cells proliferation, is 1.3 – 2 µg/ml

This material is offered for **research use only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	2 µg	Cat.N°	11343372
<i>medium</i>	10 µg	Cat.N°	11343373
<i>large</i>	50 µg	Cat.N°	11343375
<i>x-large</i>	250 µg	Cat.N°	11343377

**ImmunoTools** Excellent Quality - Advantageously priced

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