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## Human BDNF (brain-derived neurotrophic factor) Recombinant Protein

**Catalog Number:** 14-8365

**Also known as:**

**RUO: For Research Use Only. Not for use in diagnostic procedures.**

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### Product Information



**Contents:** Human BDNF (brain-derived neurotrophic factor) Recombinant Protein

**Catalog Number:** 14-8365

**Concentration:** 0.1 mg/mL

**Handling Conditions:** For best recovery, quick-spin vial prior to opening. Use in a sterile environment

**Source:** E. coli derived His129-Arg247, accession number NP\_001137284

**Molecular Mass:** 26.9 kDa

**Purity:** > 98%, as determined by SDS-PAGE

**Endotoxin:** Less than 0.01 ng/ug cytokine as determined by the LAL assay

**Bioactivity:** The ED<sub>50</sub> of this protein, as determined by C6 rat glioma proliferation assay, is 1 ug/mL. This corresponds to a specific activity of 1 x 10<sup>3</sup> Units/mg.



**Formulation:** Sterile liquid; phosphate buffered saline, 1% BSA

**Temperature Limitation:** Store at less than or equal to -70°C.

**Batch Code:** Refer to vial

**Use By:** Refer to vial

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### Description

Brain derived neurotrophic factor (BDNF) is a member of the neurotrophin family. BDNF is synthesized as pre-proBDNF, followed by cleavage to proBDNF. Although further processing generates the mature, 14 kDa protein, proBDNF is biologically active and is secreted from synaptic vesicles along with the mature form. BDNF is widely expressed in the central nervous system, and acts in an autocrine and paracrine manner on several classes of neurons. BDNF promotes neuronal survival and differentiation, and has been shown to play a critical role in memory formation and synaptic regulation. Signaling occurs mainly through the tyrosine kinase receptor TrkB, although binding to the lower-affinity receptor p75<sup>NTR</sup> has also been demonstrated.

### Applications Reported

Recombinant human BDNF is biologically active.

### Applications Tested

The ED<sub>50</sub> of this protein, as determined by C6 rat glioma proliferation assay, is 1 µg/ml. This corresponds to a specific activity of 1 x 10<sup>3</sup> Units/mg.

### References

Cunha C, Brambilla R, Thomas KL. A simple role for BDNF in learning and memory? *Front Mol Neurosci.* 2010 Feb; 9:3-1

Skup MH. BDNF and NT-3 widen the scope of neurotrophin activity: pharmacological implications. *Acta Neurobiol Exp.* 1994; 54(2): 81-94

### Related Products

14-8504 Mouse NGF beta Recombinant Protein

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