

**Recombinant Human/Murine/Rat/Canine/Equine  
Brain-derived Neurotrophic Factor  
(rHu/Mu/Rt/Ca/EqBDNF)  
PrimeGene Technical Data Sheet**

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<b>Catalog Number:</b>	107-13
<b>Source:</b>	<i>Spodoptera frugiperda</i> , Sf 21 (baculovirus)
<b>Molecular Weight:</b>	Apparent molecular mass of 13-14 kDa in SDS-PAGE under reducing conditions, a single glycosylated polypeptide protein consisting of 119 amino acids.
<b>Quantity:</b>	10ug/100μg
<b>AA Sequence:</b>	His129-Arg247; Accession # P23560
<b>Purity:</b>	> 97 % by SDS-PAGE analyses.
<b>Biological Activity:</b>	Measured in a cell proliferation assay using BaF mouse pro-B cells transfected with TrkB. The ED <sub>50</sub> for this effect is 0.2-2 ng/mL. The specific activity of rHu/Mu/Rt/Ca/EqBDNF is approximately 1.3 × 10 <sup>3</sup> units/μg, which is calibrated against recombinant human BDNF WHO Standard. Measured by its binding ability in a functional ELISA. When Recombinant Human TrkB Fc Chimera is coated at 1 μg/mL, rHu/Mu/Rt/Ca/EqBDNF binds with an apparent K <sub>d</sub> <1 nM.
<b>Physical Appearance:</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Formulation:</b>	Lyophilized from 0.2 μm filtered concentrated solution in 100 mM Sodium Citrate and 300 mM NaCl, pH 3.0.
<b>Endotoxin:</b>	Less than 0.1 EU/μg of rHu/Mu/Rt/Ca/EqBDNF as determined by LAL method.
<b>Reconstitution:</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile PBS to a concentration of 0.1 mg/mL. Further dilutions should be made in appropriately buffered solutions.
<b>Stability &amp; Storage:</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"><li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li><li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li><li>● 3 months, -20 to -70 °C under sterile conditions after reconstitution.</li></ul>
<b>Usage:</b>	This material is offered by Shanghai PrimeGene Bio-Tech for research, laboratory or further evaluation purposes. <b>NOT FOR HUMAN USE.</b>

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***Human/Murine/Rat/Canine/Equine Brain-derived Neurotrophic Factor***

Brain-derived neurotrophic factor (BDNF) is a member of the NGF family of neurotrophic factors (also named neurotrophins) that are required for the differentiation and survival of specific neuronal subpopulations in both the central as well as the peripheral nervous system. 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. All neurotrophins have six conserved cysteine residues that are involved in the formation of three disulfide bonds and all share approximately 55% sequence identity at the amino acid level. Similarly to NGF, bioactive BDNF is predicted to be a non-covalently linked homodimer.