Datasheet

Cat. No. P1007

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

Information

Gene ID	
Accession #	
Alternate Names	
Source	Spodoptera frugiperda, Sf 21 (baculovirus)
M.Wt	Apparent molecular mass of 13-14 kDa in SDS-PAGE under reducing conditions, a single glycosylated polypeptide protein consisting of 119 amino acids.
AA Sequence	His129-Arg247; Accession # P23560
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. - 12 months from date of receipt, -20 to -70 °C as supplied. - 1 month, 2 to 8 °C under sterile conditions after reconstitution. - 3 months, -20 to -70 °C under sterile conditions after reconstitution.
Formulation	Lyophilized from 0.2 μm filtered concentrated solution in 100 mM Sodium Citrate and 300 mM NaCl, pH 3.0.
Reconstitution	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.
Biological Activity	Measured in a cell proliferation assay using BaF mouse pro-B cells transfected with TrkB. The ED_{50} for this effect is 0.2-2 ng/mL. The specific activity of rHu/Mu/Rt/Ca/EqBDNF is approximately 1.3×10^3 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 Kd <1 nM.
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	10 μg	100 μg
Recombinant Human/Murine/Rat/Canine/Equine Brain-derived Neurotrophic Factor	5 μg	100 μg

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- 12 months from date of receipt, -20 to -70 °C as supplied
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- 3 months, -20 to -70 °C under sterile conditions after reconstitution

Quality Control

Purity	> 97 % by SDS-PAGE analyses.
Endotoxin	Less than 0.1 EU/μg of rHu/Mu/Rt/Ca/EqBDNF as determined by LAL method.

Description

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.

Reference

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