GFH1 Recombinant Human BDNF

Description

Brain-derived neurotrophic factor (BDNF) is a nerve growth factor that binds two receptors, the low-affinity nerve growth factor receptor (LNGFR) and the tropomyosin receptor kinase B (TrkB), to support neuron growth and survival. BDNF expression in the hippocampus is essential for long-term memory storage and learning. Some protein domains of BDNF are identical with those of NGF and another neurotrophic factor, designated NT-3 (Neurotrophin-3). Human, mouse, rat, and pig BDNF are cross-reactive.

Length	120 aa
Molecular Weight	27.2 kDa
Source	E. coli
Accession Number	P23560
Purity	≥95% determined by reducing and non-reducing SDS-PAGE

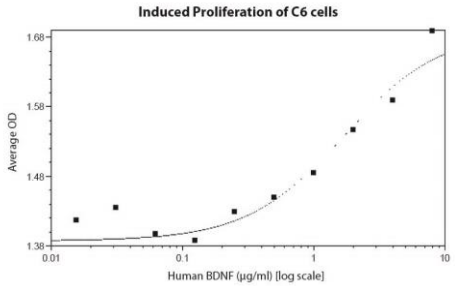
Specifications

Alternative Names	Brain-derived neurotrophic factor, neurotrophin, abrineurin
Biological Activity	Human BDNF is fully biologically active when compared to standard. The activity is determined by the proliferation of C6 cells and it is typically less than 2 µg/ml. This corresponds to an expected specific activity of 5.0 x 10^2 units/mg.
Endotoxin Level	≤1.00 EU/µg as measured by kinetic LAL
Formulation	Lyophilized from a sterile (0.2 micron) filtered aqueous solution containing 0.1% Trifluoroacetic Acid (TFA)
AA Sequence	MHSDPARRGE LSVCDSISEW VTAADKKTAV DMSGGTVTVL EKVPVSKGQL KQYFYETKCN PMGYTKEGCR GIDKRHWNSQ CRTTQSYVRA LTMDSKKRIG WRFIRIDTSC VCTLTIKRGR

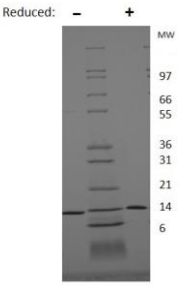
Preparation and Storage

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 0.1 mg/ml, which can be further diluted into other aqueous solutions.
Stability and Storage	12 months from date of receipt when stored at -20°C to -80°C as supplied. 1 month when stored at 4°C after reconstituting as directed. 3 months when stored at -20°C to -80°C after reconstituting as directed.

Data



Induced proliferation of C6 cells for Human BDNF. Cell proliferation was measured to calculate the ED50, which is as expected less than 2 µg/ml.



Non-reducing (-) and reducing (+) conditions in a 4 - 20% Tris-Glycine gel stained with Coomassie Blue. 1 µg of protein was loaded in each lane. Human BDNF is a non-covalent homodimer and has a predicted Mw of 13.6 kDa under both reducing and non-reducing