



Recombinant Human BDNF

20211130DS



FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	100-005S
Size:	2 µg
Lot. No.:	According to product label

Scientific Background

Gene-ID (NCBI):	627
Synonyms:	BDNF

BDNF is a member of the NGF family of neurotrophic growth factors. Like other members of this family, BDNF supports neuron proliferation and survival. BDNF can bind to a low affinity cell surface receptor called LNGFR, which also binds other neurotrophins such as NGF, NT-3 and NT-4. However, BDNF mediates its neurotrophic properties by signaling through a high affinity cell surface receptor called gp145/trkB. BDNF is expressed as the C-terminal portion of a 247 amino acid polypeptide precursor, which also contains a signal sequence of 18 amino acid residues and a propeptide of 110 amino acid residues. Recombinant Human BDNF is a 27.0 kDa homodimer of two 120 amino acid subunits linked by strong non-covalent interactions. Human and Mouse BDNF sequences are identical.

Sequence

MHSDPARRGE LSVCDISEW VTAADKKTAV DMSGGTVTVL
EKVPVSKGQL KQYFYETKCN PMGYTKEGCR GIDKRHWNSQ
CRTQSYVRA LTMSKRRIG WRFIRIDTSC VCTLTIKRGR

Database References

Protein RefSeq:	NP_733931.1
Uniprot ID:	P23560
mRNA RefSeq:	NM_170735.5

Product Specifications

Expressed in	E. coli
Purity	> 98% by SDS-PAGE & HPLC analyses
Endotoxin level	< 0.1 ng /µg of protein (<1EU/µg).
Formulation	lyophilized
Length (aa):	120
MW:	27.0 kDa

Stability: The lyophilized protein is stable at room temperature for 1 month and at 4°C for 6 months. Reconstituted working aliquots are stable for 1 week at 2°C to 8°C and for 12 months at -20°C to -80°C.

Reconstitution: Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. *Do not vortex.* This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.



AVOID REPEATED FREEZE AND THAW CYCLES!

Biological Activity: Determined by its ability to bind recombinant human TrkB Fc Chimera in a functional ELISA.