

Recombinant Human BDNF (Brain-Derived Neurotrophic Factor)

Product Description

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.

Typical Specifications

Species	Human
Expression	E. coli Cell Expressed
Activity	Typically 0.5-1.0 µg/mL ED ₅₀
Purity	>98%
Endotoxin	<1.0 EU/µg
Molecular Mass	27.0 kDa, homodimer
Country of Origin	USA

Purity Confirmation

This was determined by SDS-PAGE gel and HPLC analysis.

Activity Assay

Determined by its ability to stimulate the proliferation of rat C6 cells.

AA Sequence

MHSDPARRGE	LSVCDSISEW	VTAADKKTAV
DMSGGTVTVL	EKVPVSKGQL	KQYFYETKCN
PMGYTKEGCR	GIDKRHWNSQ	CRTTQSYVRA
LTMDSKKRIG	WRFIRIDTSC	VCTLTIKRGR

Reconstitution Buffer

Centrifuge the vial prior to opening.
Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex.

Storage

For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% HSA) and store in working aliquots at -20°C to -80°C.

Limited Use and Restrictions

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