Recombinant Human Mesencephalic Astrocyte-Derived Neurotrophic Factor

#R00171

Size: 5 μg/100 μg/500 μg

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.

Background

MANF is a secreted neurotrophic factor that is expressed in brain, neuronal and certain non-neuronal tissues. It has been shown to promote survival, growth and function of dopamine specific neurons. MANF and its structural homolog CDNF, each contain an N-terminal saposin-like lipid binding domain, and a carboxyl-terminal domain, which is not homologous to previously characterized protein structures. MANF and CDNF can prevent 6-OHDA induced degeneration of dopaminergic neurons by triggering survival pathways in a rat experimental model of Parkinson disease. Mature human MANF is 99 %, 98 % and 96 % a.a. identical to mature rat, mouse and bovine MANF respectively.

AA Sequence

LRPGDCEVCISYLGRFYQDLKDRDVTFSPATIENELIK FCREARGKENRLCYYIGATDDAATKIINEVSKPLAHHI PVEKICEKLKKKDSQICELKYDKQIDLSTVDLKKLRVK ELKKILDDWGETCKGCAEKSDYIRKINELMPKYAPKA ASARTDL

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

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Product Specification

Synonyms	ARMET
Accession	P55145
GeneID	7873
Species	Human
Source	Escherichia coli.
Molecular Weight	Approximately 18.2 kDa, a single non-glycosylated polypeptide chain containing158 amino acids.
Purity	> 95 % by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The ED_{50} as determined by a cell proliferation assay using rat C6 cells is less than 20 μg/ml, corresponding to a specific activity of > 50 IU/mg.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.4.
Endotoxin	Less than 1 EU/μg of rHuMANF as determined by LAL method.