

Recombinant Rat Mesencephalic Astrocyte-Derived Neurotrophic Factor (rRtMANF)

ChemWhat Technical Data Sheet (TDS)

Catalog Number:	147-15
Source:	<i>Escherichia coli</i> .
Molecular Weight:	Approximately 18.2 kDa, a single non-glycosylated polypeptide chain containing 158 amino acids.
Quantity:	5µg/25µg/1000µg
AA Sequence:	LRPGDCEVCI SYLGRFYQDL KDRDVTFSPA TIEELIKFC REARGKENRL CYYIGATDDA ATKIINEVSK PLAHHIPVEK ICEKLKKKDS QICELKYDKQ IDLSTVDLKK LRVKELKKIL DDWGEMCKGC AEKSDYIRKI NELMPKYAPK AASARTDL
Purity:	> 98 % 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 10 µg/ml, corresponding to a specific activity of > 100 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 0.1 EU/µg of rRtMANF as determined by LAL method.
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.
Shipping:	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage:	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none">● 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.
Usage:	ChemWhat Limited in UK offers this branded product for research, development or further evaluation purposes. NOT FOR HUMAN USE.

Rat Mesencephalic Astrocyte-Derived Neurotrophic Factor

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 rat MANF is 99 %, 99 % and 96 % a.a. identical to mature murine, human and bovine MANF respectively.