

## Recombinant Murine Cerebral Dopamine Neurotrophic Factor (rMuCDNF)

## **ChemWhat Technical Data Sheet (TDS)**

Catalog Number:

127-16

Source:

Escherichia coli.

Molecular Weight:

Approximately 18.5 kDa, a single non-glycosylated polypeptide chain containing 163 amino acids.

Quantity:

 $5\mu g/25\mu g/1000\mu g$ 

AA Sequence:

QGLEAGVGPR ADCEVCKEFL DRFYNSLLSR GIDFSADTIE KELLNFCSDA KGKENRLCYY LGATTDAATK ILGEVTRPMS VHIPAVKICE KLKKMDSQIC

ELKYGKKLDL ASVDLWKMRV AELKQILQRW GEECRACAEK SDYVNLIREL

APKYVEIYPO TEL

**Purity:** 

> 97 % by SDS-PAGE and HPLC analyses.

**Biological Activity:** 

Fully biologically active when compared to standard. It is able to enhance neurite outgrowth of E16-E18 rat embryonic cortical neurons when immobilized at 5 - 30 μg/mL on a nitrocellulose-coated

18 fat emoryome cortical neurons when mimoonized at 3 - 30 µg/mil of

microplate.

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 rMuCDNF 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  $\leq$  -20  $\mathbb C$ . 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.

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.

## Murine Cerebral Dopamine Neurotrophic Factor

Cerebral dopamine neurotrophic factor (CDNF), also known as ARMET-like protein 1, is a protein encoded by the CDNF gene and it is widely expressed in neuronal and non-neuronal tissues. The cerebral dopamine neurotrophic factor (CDNF) also is a novel neurotrophic factor with strong trophic activity on dopaminergic neurons comparable to that of glial cell line-derived neurotrophic factor (GDNF). By research, CDNF prevents the 6-hydroxydopamine (6-OHDA)-induced degeneration of dopaminergic neurons and it might be beneficial for the treatment of parkinson's disease. Recombinant murine CDNF contains 163 amino acid residues and it shares 81 % and 87 % a.a. sequence identity with human and rat CDNF.

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https://www.chemwhat.com

Email: contact@chemwhat.com