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# **DATASHEET**

Recombinant mouse MANF protein

### **Product overview**

Name Recombinant mouse MANF protein

Cat No HB6565

Biological description The mouse MANF neurotrophic factor belongs to the ARMET family and has been shown to have

neuroprotective effects for dopaminergic neurons.

MANF expression is also induced during ER stress and is involved in protein quality control during ER

stress.

Species of origin mouse

Alternative names Recombinant Mouse Mesencephalic Astrocyte-Derived Neurotrophic Factor, Mesencephalic astrocyte-

derived neurotrophic factor, Arginine-rich protein, Protein ARMET, Manf, Armet.

**Biological action** Activator >98%

**Description** Neurotrophic factor with neuroprotective effects

## **Biological Data**

Application notes  $ED_{50} = 10 \mu g/ml$  (determined by a cell proliferation assay using rat C6 cells), corresponding to a

specific activity of >1.00IU/mg.

# **Solubility & Handling**

Storage instructions Solubility overview -20°C

To make a stock solution, reconstitute in sterile  $18M\Omega$ cm water at a concentration >  $100\mu g/ml$ , which can then be diluted to make a working solution

Handling

- Solutions should be made in sterile deionized water (not less than 100 μg/ml). This solution can then be further diluted with other aqueous solutions.
- Following reconstitution, solutions may be stored at 4°C and are useable for around 2-7 days and for future use store at -18°C.
- For long term storage, a carrier protein (0.1% HSA or BSA) should be added to stock solutions.
  Solutions should be aliquoted into tightly sealed vials for storage at -20°C. Freeze-thaw cycles should be prevented.

Shipping Conditions Important Stable for ambient temperature shipping. Follow storage instructions on receipt.

This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

#### **Chemical Data**

UniProt ID Molecular Weight Chemical structure Q9CXI5 18.2 UniProt ID



Q9CXI5

Source Appearance Formulation E. Coli.

White lyophilized powder (sterile filtered & freeze-dried) Lyophilized from a  $0.2\mu m$  filtered solution in PBS (pH 7.4)

#### References

MANF: a new mesencephalic, astrocyte-derived neurotrophic factor with selectivity for dopaminergic neurons

Petrova P *et al* (2003) J Mol Neurosci 20(2) **PubMedID** 12794311

Mesencephalic astrocyte-derived neurotrophic factor is neurorestorative in rat model of Parkinson's disease

Voutilainen MH *et al* (2009) J Neurosci 29(30) **PubMedID**19641128

Mesencephalic Astrocyte-Derived Neurotrophic Factor (MANF) Elevates Stimulus-Evoked Release of Dopamine in Freely-Moving Rats

Renko JM *et al* (2018) Mol Neurobiol 55(8) **PubMedID** 29349573