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## DATASHEET

### Recombinant mouse MANF protein

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#### Product overview

|                               |  |
|-------------------------------|--|
| <b>Name</b>                   | Recombinant mouse MANF protein   |
| <b>Cat No</b>                 | HB6565   |
| <b>Biological description</b> | The mouse MANF neurotrophic factor belongs to the ARMET family and has been shown to have neuroprotective effects for dopaminergic neurons.<br><br>MANF expression is also induced during ER stress and is involved in protein quality control during ER stress. |
| <b>Species of origin</b>      | mouse  |
| <b>Alternative names</b>      | Recombinant Mouse Mesencephalic Astrocyte-Derived Neurotrophic Factor, Mesencephalic astrocyte-derived neurotrophic factor, Arginine-rich protein, Protein ARMET, Manf, Armet.   |
| <b>Biological action</b>      | Activator  |
| <b>Purity</b>                 | >98%   |
| <b>Description</b>            | Neurotrophic factor with neuroprotective effects   |

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#### Biological Data

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|--------------------------|---|
| <b>Application notes</b> | ED <sub>50</sub> = 10µg/ml (determined by a cell proliferation assay using rat C6 cells), corresponding to a specific activity of >1.00IU/mg. |
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#### Solubility & Handling

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|-----------------------------|---|
| <b>Storage instructions</b> | -20°C   |
| <b>Solubility overview</b>  | To make a stock solution, reconstitute in sterile 18MΩcm water at a concentration > 100µg/ml, which can then be diluted to make a working solution  |
| <b>Handling</b>             | <ul style="list-style-type: none"><li>• 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.</li><li>• 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.</li><li>• 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.</li></ul> |
| <b>Important</b>            | This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.   |

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#### Chemical Data

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|---------------------------|---|
| <b>UniProt ID</b>         | Q9CXI5  |
| <b>Molecular Weight</b>   | 18.2  |
| <b>Chemical structure</b> |  |

|               |          |
|---------------|----------|
| <b>Source</b> | E. Coli. |
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**Appearance**  
**Formulation**

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

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## 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](#)

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