

Recombinant Mouse MANF/ARMET Protein (His Tag)

Catalog No. PKSM040421

Note: Centrifuge before opening to ensure complete recovery of vial contents.

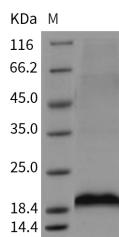
Description

Synonyms	3230402M22Rik;AA407711;AA408789;AA673178;Armet;D17914;D18Mgi17
Species	Mouse
Expression Host	HEK293 Cells
Sequence	Met 1-Leu 179
Accession	NP_083379.2
Calculated Molecular Weight	19.6 kDa
Observed molecular weight	21 kDa
Tag	C-His
Bioactivity	Not validated for activity

Properties

Purity	> 90 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 90 % as determined by reducing SDS-PAGE.

Background

Mesencephalic astrocyte-derived neurotrophic factor, also known as Protein ARMET, Arginine-rich protein, MANF and ARMET, is a secreted protein which belongs to the ARMET family. ARMET selectively promotes the survival of

For Research Use Only

dopaminergic neurons of the ventral mid-brain. It modulates GABAergic transmission to the dopaminergic neurons of the substantia nigra. ARMET enhances spontaneous, as well as evoked, GABAergic inhibitory postsynaptic currents in dopaminergic neurons. ARMET inhibits cell proliferation and endoplasmic reticulum (ER) stress-induced cell death. The N-terminal region of ARMET may be responsible for neurotrophic activity while the C-terminal region may play a role in the ER stress response. MANF reduces endoplasmic reticulum (ER) stress and has neurotrophic effects on dopaminergic neurons. Intracortical delivery of recombinant MANF protein protects tissue from ischemic brain injury. MANF has been described as a survival factor for dopaminergic neurons. MANF expression was widespread in the nervous system and non-neuronal tissues. In the brain, relatively high MANF levels were detected in the cerebral cortex, hippocampus and cerebellar Purkinje cells. The widespread expression of MANF together with its evolutionary conserved nature and regulation by brain insults suggest that it has important functions both under normal and pathological conditions in many tissue types.