Active Mesencephalic Astrocyte Derived Neurotrophic Factor (MANF)

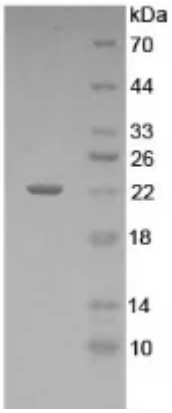
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概述（Summary）

别称（Alternative Names）	ARMET; ARP; Arginine Rich Mutated In Early Stage Tumors; Arginine-rich protein
纯度（Purity）	Greater than 90% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Gly28-Leu182】
Accession #	P55145
表达宿主（Host）	-
种属（Species）	Homo sapiens (Human)
预测分子量（Predicted MW）	21.5 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
运输方式（Shipping）	The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below.
稳定性&储存（Stability &Storage）	12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles.
复溶（Reconstitution）	Reconstitute in 20mM Tris, 150mM NaCl (PH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
背景介绍（References）	Selectively promotes the survival of dopaminergic neurons of the ventral mid-brain. Modulates GABAergic transmission to the dopaminergic neurons of the substantia nigra. Enhances spontaneous, as well as evoked, GABAergic inhibitory postsynaptic currents in dopaminergic neurons. Inhibits cell proliferation and endoplasmic reticulum (ER) stress-induced cell death. Retained in the ER/sarcoplasmic reticulum (SR) through association with the endoplasmic reticulum chaperone protein HSPA5 under normal conditions. Up-regulated and secreted by the ER/SR in response to ER stress and hypoxia. Following secretion by the ER/SR, directly binds to 3-O-sulfogalactosylceramide, a lipid sulfatide in

the outer cell membrane of target cells. Sulfatide binding promotes its cellular uptake by endocytosis, and is required for its role in alleviating ER stress and cell toxicity under hypoxic and ER stress conditions.

电泳图（SDS-PAGE image）



Greater than 90% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）



A B

MANF (Mesencephalic astrocyte-derived neurotrophic factor) is a prosurvival protein that protects the cells when applied intracellularly in vitro or extracellularly in vivo. Recently, MANF has also been proven to inhibit cell proliferation and ER stress-induced cell death and also affects cell size and morphology under certain conditions. Thus the bioactivity of human recombinant MANF were detected using U87-MG. Briefly, U87-MG cells were seeded into triplicate wells of 96-well plates at a density of 2,000 cells/well and allowed to attach overnight, then the medium was replaced with serum-free standard DMEM prior to the addition of various concentrations of MANF. After incubated for 48h, cells were observed by inverted microscope and were shown in Figure 1. It was obvious that MANF inhibited cell proliferation of U87-MG and affected cell size and morphology. (A)U7-MG cells cultured in DMEM, stimulated with 0.01ng/mL MANF for 48h; (B)Unstimulated U87-MG cells cultured in DMEM for 48h. Figure 1. Inhibition of U87-MG cell proliferation after stimulated with MANF.

注意事项（Note）

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