

# Active Mesencephalic Astrocyte Derived Neurotrophic Factor (MANF) Instruction Manual

## SBPC300Hu01

**Homo sapiens (Human)**

**Buffer Formulation**

20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.

**Traits**

Freeze-dried powder

**Purity**

> 90%

**Isoelectric Point**

8.5

**Applications**

Cell culture; Activity Assays.

### ACTIVITY TEST



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.

## **USAGE**

Reconstitute in 20mM Tris, 150mM NaCl (PH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

## **STORAGE**

Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.

## **STABILITY**

The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

## **Image**

GGGAGCTGGGAGTTTGTATTCTATCTGGAGATTTTACGGGACTCAGGACAGAGTGTCAATTCACCGGCACTATTGAAAGGACTTATAAGTCTGGCGGGAGGAGGGGAGAGATCGGTGTGTACTATATGCGGGCCAGATGATGCGCACAAATTCATCATGAGGATCAAGGCTCTGGC  
GDCBVCISYLG RPTQDLKDRDVTFS PATIENBELIEFCREARGKEURLCYIIGATDDAATPEIINEVSEPLA

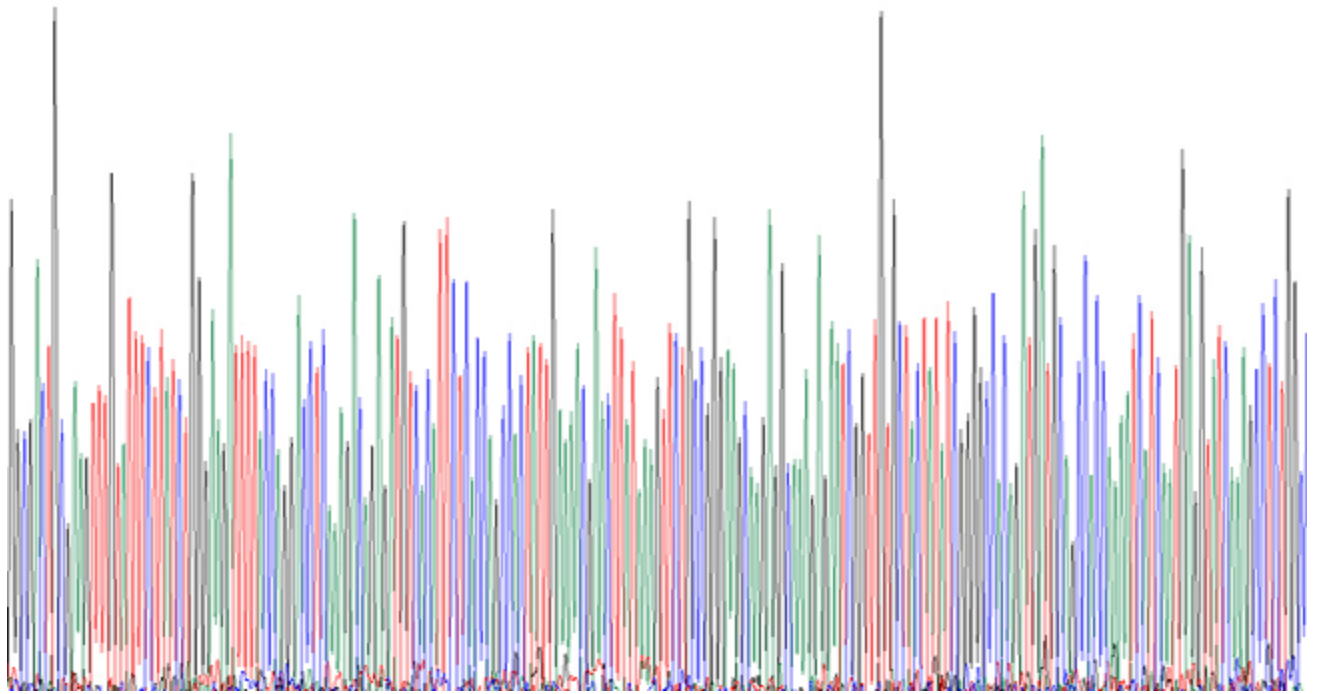


Figure. Gene Sequencing (Extract)

### Image

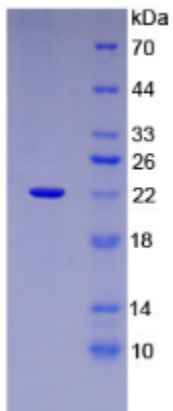


Figure. SDS-PAGE

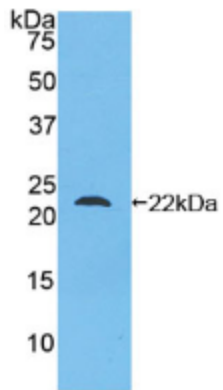


Figure. Western Blot

**[IMPORTANT NOTE]**

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.