Active Midkine (MK) Instruction Manual

SBPA155Hu01

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	> 95%
Isoelectric Point	9.4
Applications	Cell culture; Activity Assays.

ACTIVITY TEST

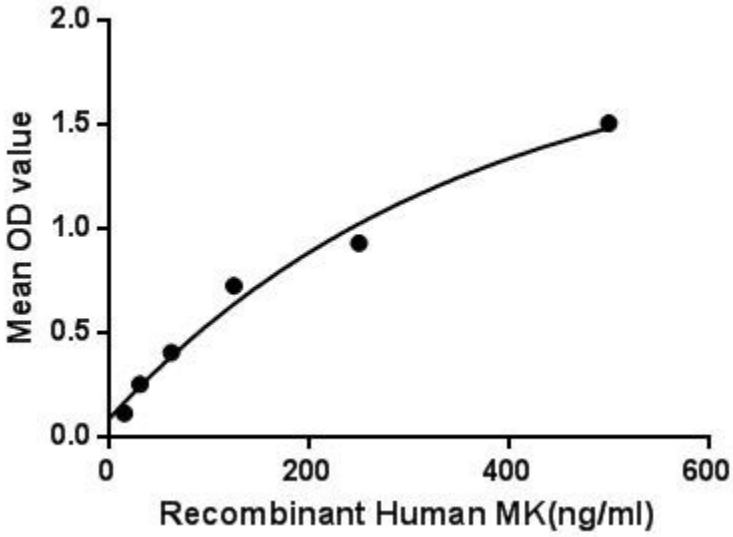

Figure. The binding activity of MK with LRP1.
Midkine (MK) also known as neurite growth-promoting factor 2 (NEGF2) is a protein that in humans is encoded by the MDK gene. MK is a basic heparin-binding growth factor of low molecular weight, and forms a family with pleiotrophin. It is pleiotropic, capable of exerting activities such as cell proliferation, cell migration, angiogenesis and fibrinolysis. MK may potentially be indirectly targeted as a cancer treatment as a result of its cancerous proliferation properties. Besides, Low Density Lipoprotein Receptor Related Protein 1 (LRP1) has been identified as an interactor of MK, thus a binding ELISA assay was conducted to detect the interaction of recombinant human MK and recombinant human LRP1. Briefly, MK were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL

were then transferred to LRP1-coated microtiter wells and incubated for 2h at 37℃. Wells were washed with PBST and incubated for 1h with anti-MK pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50μL stop solution to the wells and read at 450nm immediately. The binding activity of MK and LRP1 was shown in Figure 1, and this effect was in a dose dependent manner.

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

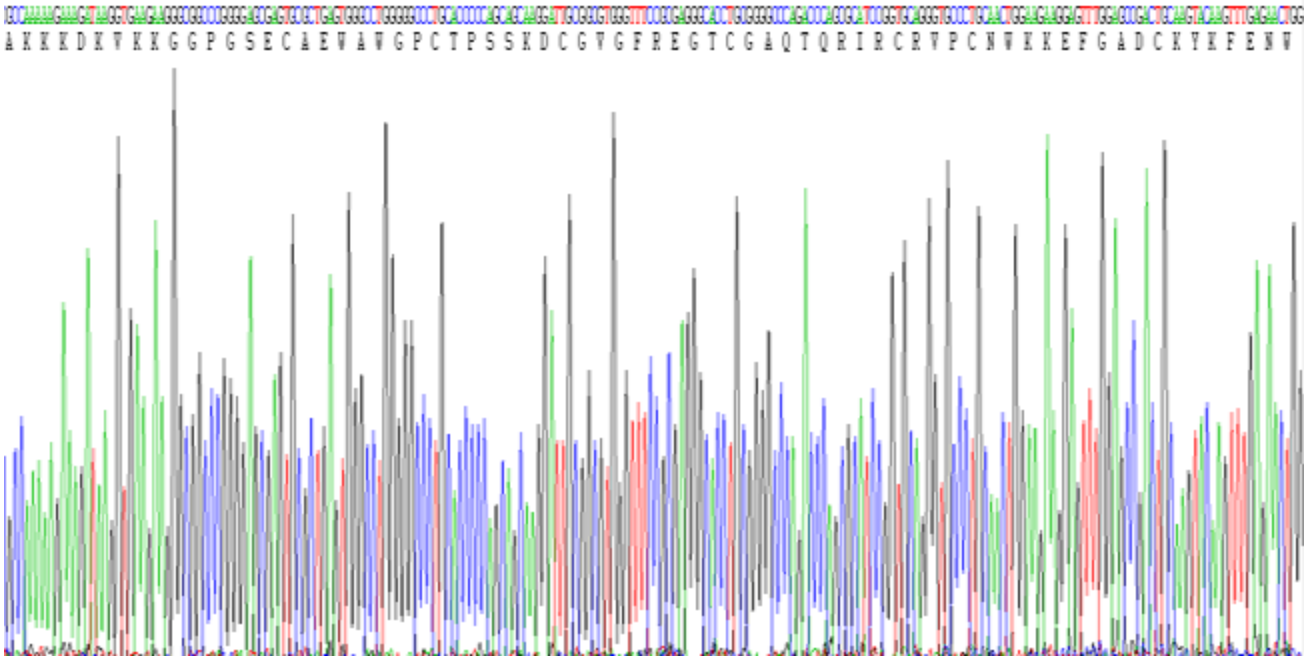

Figure. Gene Sequencing (Extract)

Image

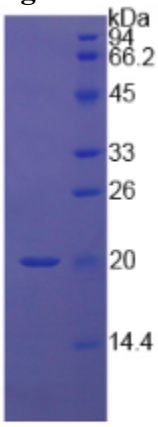

Figure. SDS-PAGE

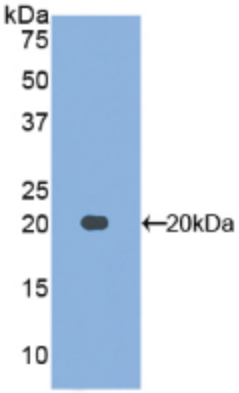

Figure. Western Blot

[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.