

APB653Hu01 1mg
Active Myostatin (MSTN)
Organism Species: *Homo sapiens (Human)*
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

13th Edition (Revised in Aug, 2023)

[PROPERTIES]

Source: Prokaryotic expression.

Host: *E. coli*

Residues: Arg266~Ser375

Tags: N-terminal His-tag

Subcellular Location: Secreted.

Purity: >95%

Endotoxin Level: <1.0EU per 1µg (determined by the LAL method).

Traits: Freeze-dried powder

Buffer Formulation: PBS, pH7.4, containing 5% Trehalose.

Original Concentration: 450µg/mL

Applications: Cell culture; Activity Assays.

(May be suitable for use in other assays to be determined by the end user.)

Predicted isoelectric point: 6.8

Predicted Molecular Mass: 13.8kDa

Accurate Molecular Mass: 14kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.

Store at 2-8°C for one month.

Aliquot and store at -80°C for 12 months.

Stability Test: 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.

[SEQUENCE]

RDFGLDCDEHSTESRCCRYPLTVDFEAFGWDWIIAPKRYKANYCSGECEVFVFLQKYPHTH
LVHQANPRGSAGPCCTPTKMSPINMLYFNGKEQIIYGKIPAMVVDRCGCS

[ACTIVITY]

Myostatin (MSTN) also known as growth differentiation factor 8(GDF-8) is a member of the TGF beta protein family. Myostatin is a secreted growth differentiation factor that produced and released by myocytes. This protein negatively regulates skeletal muscle cell proliferation and differentiation. Besides, Bone Morphogenetic Protein 1 (BMP1) has been identified as an interactor of MSTN, thus a binding ELISA assay was conducted to detect the interaction of recombinant human MSTN and recombinant human BMP1. Briefly, MSTN were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to BMP1-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-MSTN 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°C. Finally, add 50µL stop solution to the wells and read at 450nm immediately. The binding activity of MSTN and BMP1 was shown in Figure 1, and this effect was in a dose dependent manner.

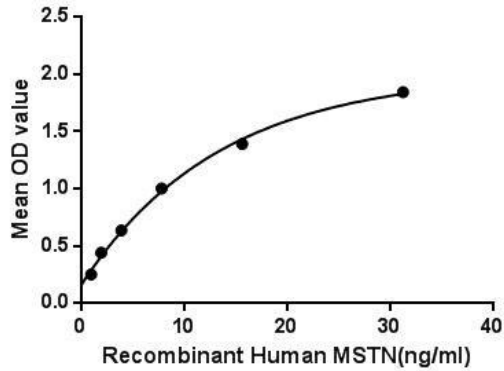


Figure 1. The binding activity of MSTN with BMP1.

[IDENTIFICATION]

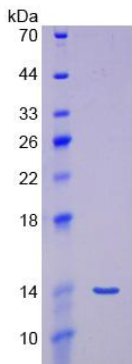


Figure 2. SDS-PAGE

Sample: Active recombinant MSTN, Human

[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.