APB653Hu01 50μg
Active Myostatin (MSTN)
Organism Species: Homo sapiens (Human)
Instruction manual

FOR IN VITRO USE AND RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1th Edition (Apr, 2016)

[PROPERTIES]

Source: Prokaryotic expression.
Host: *E. coli*
Residues: Asp267~Ser375
Tags: N-terminal His-tag
Purity: >98%
Buffer Formulation: 10mM PBS.
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 to a concentration of 0.1-1.0 mg/mL. Do not vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.
Store at 2-8ºC for one month.
Aliquot and store at -80ºC 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 37ºC 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]

DFGL DCDEHSTESR CCRYPLTVDF EAFGWDWIIA PKRYKANYCS GECEFVFLQK YPHTHLVHQA NPRGSAGPCC TPTKMSPINM LYFNGKEQII YGKIPAMVVD RCGCS

[ACTIVITY]

Myostatin (MSTN) also known as growth differentiation factor 8(GDF-8) is a member of the TGF beta protein family. Myostatin is aa 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℃. 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℃. Finally, add 50μL stop solution to the wells and read at 450nm immediately. The binding activity of of MSTN and BMP1 was shown in Figure 1, and this effect was in a dose dependent manner.

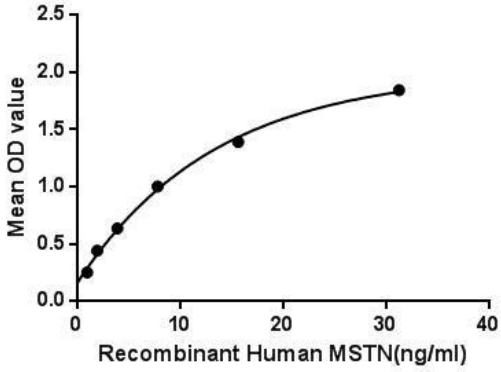

Figure 1. The binding activity of MSTN with BMP1.

[IDENTIFICATION]

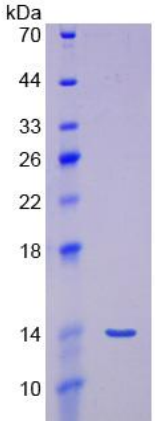

Figure 2. SDS-PAGE

Sample: Active recombinant MSTN, Human

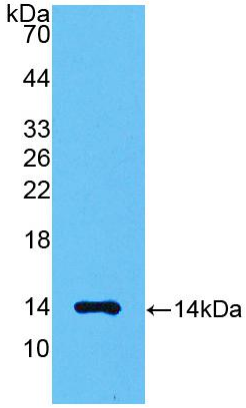

Figure 3. Western Blot

Sample: Recombinant MSTN, Human;

Antibody: Rabbit Anti-Human MSTN Ab (PAB653Hu01)