

**APB653Ra01 100µg**

**Active Myostatin (MSTN)**

**Organism Species: *Rattus norvegicus (Rat)***

***Instruction manual***

FOR RESEARCH USE ONLY

NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

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1st Edition (Apr, 2016)

## **[ PROPERTIES ]**

**Source:** Prokaryotic expression.

**Host:** *E. coli*

**Residues:** Arg267~Ser376

**Tags:** N-terminal His-tag

**Purity:** >95%

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

**Buffer Formulation:** 20mM Tris, 150mM NaCl, pH8.0, containing 0.05% sarcosyl and 5% trehalose.

**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 20mM Tris, 150mM NaCl (pH8.0) 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 ]**

RDFG LDCDEHSTES RCCRYPLTVD FEAFGWDWII  
APKRYKANYC SGECEFVFLQ KYPHTHLVHQ ANPRGSAGPC CTPTKMSPIN  
MLYFNGKEQI IYGKIPAMVV DRCGCS

## **[ ACTIVITY ]**

Myostatin (MSTN) also known as growth differentiation factor 8 (GDF-8) a myokine, a protein produced and released by myocytes. It inhibit myogenesis including muscle cell growth and differentiation. Myostatin is a secreted growth differentiation factor that is a member of the TGF beta protein family. Besides, Follistatin Like Protein 3 (FSTL3) has been identified as an interactor of MSTN, thus a binding ELISA assay was conducted to detect the interaction of recombinant rat MSTN and recombinant rat FSTL3. Briefly, MSTN were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to FSTL3-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 FSTL3 was shown in Figure 1, and this effect was in a dose dependent manner.

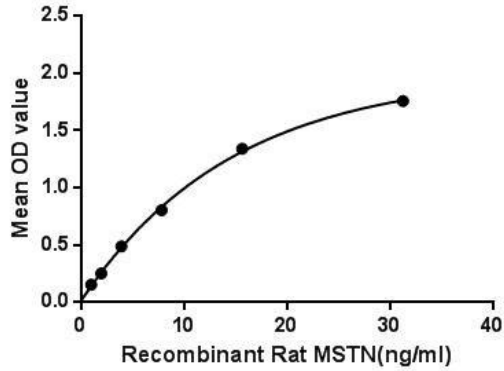


Figure 1. The binding activity of MSTN with FSTL3.

## [ IDENTIFICATION ]

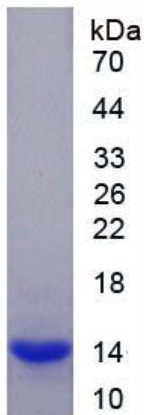
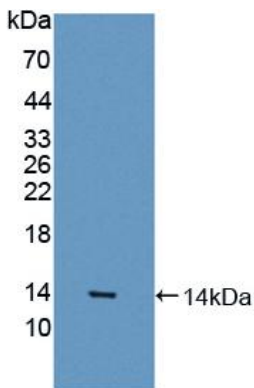


Figure 2. SDS-PAGE

Sample: Active recombinant MSTN, Rat





**Figure 3. Western Blot**

**Sample: Recombinant MSTN, Rat;**

**Antibody: Rabbit Anti-Rat MSTN Ab (PAB653Ra01)**

**[ IMPORTANT NOTE ]**

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