

APA399Mu02 100µg
Active High Mobility Group Protein 1 (HMG1)
Organism Species: *Mus musculus (Mouse)*
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Apr, 2016)

[PROPERTIES]

Source: Prokaryotic expression.

Host: *E. coli*

Residues: Pro9~Arg163

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: 9.7

Predicted Molecular Mass: 21.7kDa

Accurate Molecular Mass: 22kDa 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]

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PR GKMSYAFFV QTCREEHKKK HPDASVNFSE FSKKCSERWK
TMSAKEKGF EDMAKADKAR YEREMKTYIP PKGETKKKFK DPNAKRPSP
AFFLFCSEYR PKIKGHPGL SIGDVAKKLG EMWNNTAADD KQPYEKKA
LKEKYEKDIA AYR
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[ACTIVITY]

High Mobility Group Protein 1 (HMG1) is among the most important chromatin proteins. In the nucleus HMGB1 interacts with nucleosomes, transcription factors, and histones. This nuclear protein organizes the DNA and regulates transcription. Besides, Stromal Cell Derived Factor 1 (SDF1) has been identified as an interactor of HMG1, thus a binding ELISA assay was conducted to detect the interaction of recombinant mouse HMG1 and recombinant mouse SDF1. Briefly, HMG1 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100µL were then transferred to SDF1-coated microtiter wells and incubated for 2h at 37 °C . Wells were washed with PBST and incubated for 1h with anti-HMG1 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 HMG1 and SDF1 was shown in Figure 1, and this effect was in a dose dependent manner.

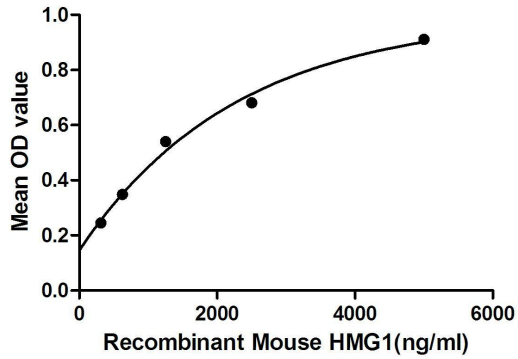


Figure 1. The binding activity of HMG1 with SDF1.

[IDENTIFICATION]

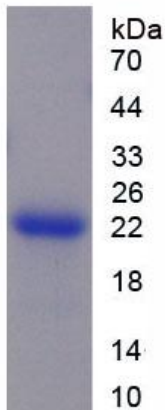


Figure 2. SDS-PAGE

Sample: Active recombinant HMG1, Mouse

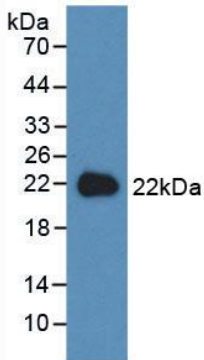


Figure 3. Western Blot

Sample: Recombinant HMG1, Mouse;

Antibody: Rabbit Anti-Mouse HMG1 Ab (PAA399Mu02)

[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.