

APA044Mu01 50µg
Active Growth Hormone (GH)
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: Pro28~Phe216

Tags: N-terminal His-tag

Purity: >98%

Buffer Formulation: 100mM NaHCO₃, 500mM NaCl, pH8.3, containing 0.01% sarcosyl, 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: 7.2

Predicted Molecular Mass: 25.4kDa

Accurate Molecular Mass: 25kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 100mM NaHCO₃, 500mM NaCl (pH8.3) 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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PAM PLSSLFSNAV LRAQHLHQLA  
ADTYKEFERA YIPEGQRYSI QNAQA AFCFS ETIPAPTGKE EAQQRDMEL  
LRFSLLLIQS WLG PVQFLSR IFTNSLMFGT SDRVYEKLD LEEGIQALMQ  
ELEDGSPRVG QILKQTYDKF DANMRSDDAL LKNYGLLSCF KKDLHKAETY  
LRVMKCRRFV ESSCAF
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[ACTIVITY]

Growth hormone (GH), also known as somatotropin is a peptide hormone that stimulates growth, cell reproduction, and cell regeneration in humans and other animals. It is a type of mitogen which is specific only to certain kinds of cells. GH play a major role in body growth by stimulating the liver and other tissues to secrete IGF-1. It stimulates both the differentiation and proliferation of myoblasts. It also stimulates amino acid uptake and protein synthesis in muscle and other tissues. Besides, Growth Hormone Receptor (GHR) has been identified as an interactor of GH, thus a binding ELISA assay was conducted to detect the interaction of recombinant mouse GH and recombinant mouse GHR. Briefly, GH were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to GHR-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-GH 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 GH and GHR was shown in Figure 1, and this effect was in a dose dependent manner.

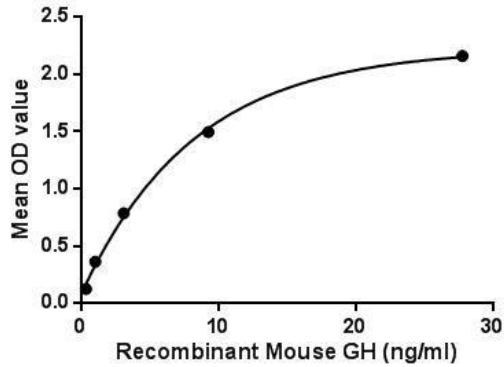


Figure 1. The binding activity of GH with GHR

[IDENTIFICATION]

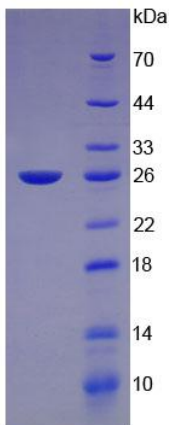


Figure 2. SDS-PAGE

Sample: Active recombinant GH, Mouse

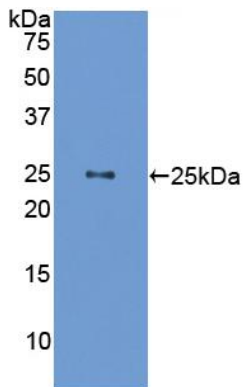


Figure 3. Western Blot

Sample: Recombinant GH, Mouse;

Antibody: Rabbit Anti-Mouse GH Ab (PAA044Mu01)

[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.