

APB025Hu01 100µg
Active Neuromedin U (NMU)
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: Ala35~Ile158

Tags: N-terminal His and GST Tag

Purity: >90%

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

Buffer Formulation: PBS, pH7.4, containing 0.01% SKL, 5%Trehalose .

Original Concentration: 200µg/mL

Applications: Activity Assays.

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

Predicted isoelectric point: 9.8

Predicted Molecular Mass: 44.5kDa

Accurate Molecular Mass: 46kDa 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]

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ACRGAP ILPQGLQPEQ  
QLQLWNEASN ALEELCFMIM GMLPKPQEQD EKDNTKRFLF HYSKTQKLGK  
SNVVSSVVHP LLQLVPHLHE RRMKRFRVDE EFQSPFASQS RGYFLFRPRN  
GRRSAGFI
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[ACTIVITY]

Neuromedin U (NMU) is a neuropeptide hormone that is produced by neurons in the central and peripheral nervous systems. It is a member of the neuromedin family and is primarily found in the brain, where it is involved in pleiotropic physiological functions, including the regulation of blood pressure, food uptake, nociception, pain perception, bone formation, and immunological responses. Besides, G Protein Gamma 2 (GNg2) has been identified as an interactor of NMU, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human NMU and recombinant human GNg2. Briefly, biotin-linked NMU were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 μ l were then transferred to GNg2-coated microtiter wells and incubated for 1h at 37 °C. Wells were washed with PBST 3 times and incubation with Streptavidin-HRP for 30min, then wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 °C. Finally, add 50 μ l stop solution to the wells and read at 450nm immediately. The binding activity of NMU and GNg2 was shown in Figure 1, the EC50 for this effect is 0.144ug/mL.

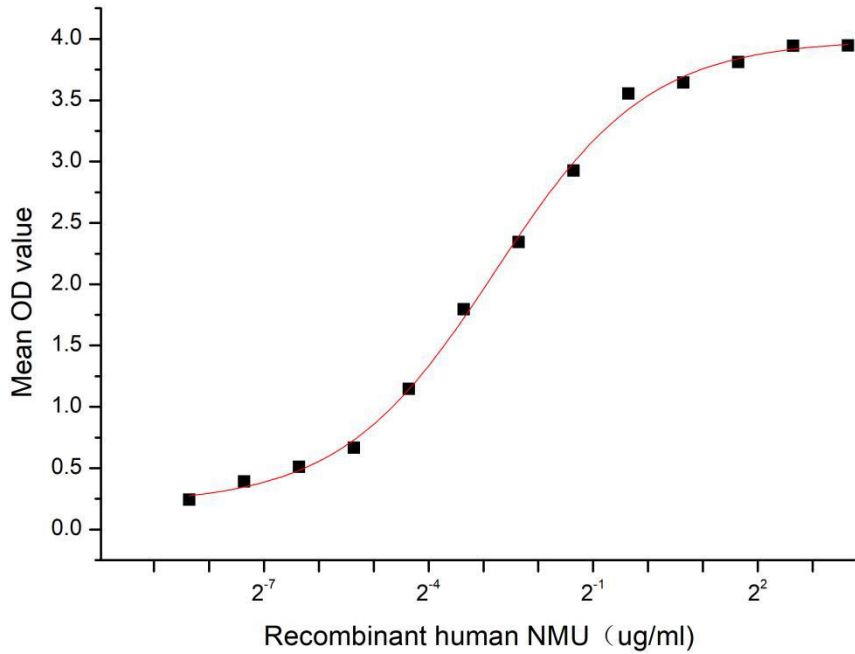


Figure 1. The binding activity of recombinant human NMU and recombinant human GNg2

[IDENTIFICATION]

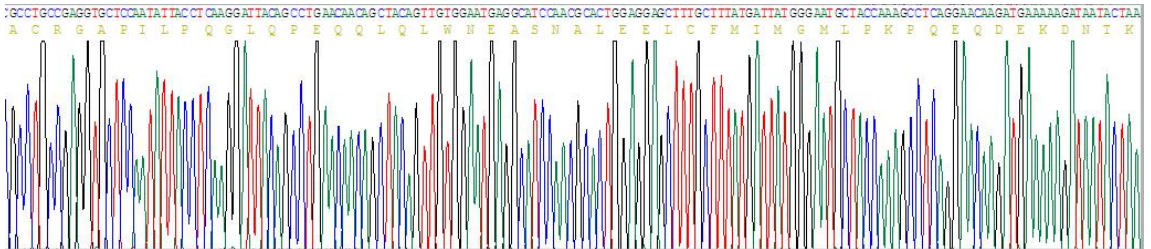


Figure 2. Gene Sequencing (extract)

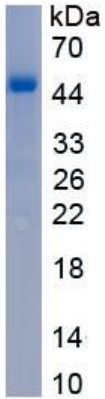


Figure 3. SDS-PAGE

Sample: Active recombinant NMU, 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.