

APA231Hu02 100µg

Active Urocortin (UCN)

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: Arg26~Lys124

Tags: N-terminal His-tag

Purity: >90%

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

Buffer Formulation: PBS, pH7.4, containing 0.01% Sarcosyl, 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: 12.2

Predicted Molecular Mass: 14.6kDa

Accurate Molecular Mass: 16kDa 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]

RSPEAAGVQDPSLRWSPGARNQGGGARALLLLAERFPRRAGPGRLGLGTAGERPRRDNP
SLSIDLTFHLLRTLLELARTQSQRERAEQNRIIFDSVGK

[ACTIVITY]

Urocortin (UCN) is a 40 amino acid peptide hormone that belongs to the corticotropin-releasing factor (CRF) family. It is expressed in specific regions of the brain but is also detectable in other organs notably the heart. UCN is involved in stress response and has diverse physiological functions including modulation of immune and inflammatory responses, as well as effects on the cardiovascular and central nervous systems. Besides, Urocortin 3 (UCN3) has been identified as an interactor of UCN, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human UCN and recombinant mouse UCN3. Briefly, UCN3 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μ l were then transferred to UCN-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST and incubated for 1h with anti-UCN3 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37°C, 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 450/630nm immediately. Measured by its binding ability in a functional ELISA. When Recombinant human UCN is Immobilized at 2 μ g/mL (100 μ L/well), the concentration of UCN3 that produces 50% optimal binding response is found to be approximately 0.08 μ g/mL.



Figure 1. The binding activity of recombinant human UCN and recombinant mouse UCN3

[IDENTIFICATION]

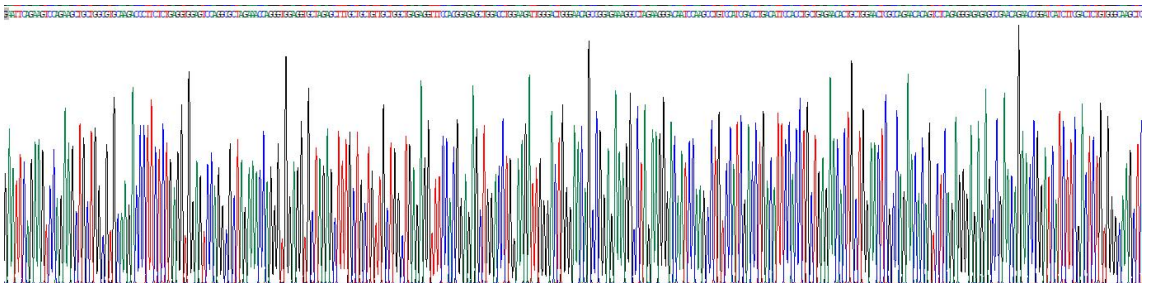


Figure 2. Gene Sequencing (extract)

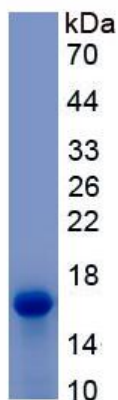


Figure 3. SDS-PAGE

Sample: Active recombinant UCN, 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.