APR740Hu01 100μg
Active Meteorin Like Protein (METRNL)
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: Asn92~Asp311
Tags: N-terminal His-tag
Purity: >95%
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: 7.7
Predicted Molecular Mass: 28.5kDa
Accurate Molecular Mass: 29kDa 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 2-8ºC for one month.
Aliquot and store at -80ºC 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 37ºC 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]

NLRPNTFSP ARHLTVCIRS FTDSSGANIY LEKTGELRLL VPDGDGRPGR VQCFGLEQGG LFVEATPQQD IGRRTTGFQY ELVRRHRASD LHELSAPCRP CSDTEVLLAV CTSDFAVRGS IQQVTHEPER QDSAIHLRVS RLYRQKSRVF EPVPEGDGHW QGRVRTLLEC GVRPGHGDFL FTGHMHFGEA RLGCAPRFKD FQRMYRDAQE RGLNPCEVGT D

[ACTIVITY]

Meteorin Like Protein (METRNL), corresponding to product code R740Hu, is a secreted cytokine with diverse physiological functions. It is widely expressed in tissues like adipose tissue, skeletal muscle, and the immune system. METRNL plays key roles in regulating energy metabolism, inflammation, and tissue repair. It is involved in activating beige adipocyte formation and enhancing energy expenditure, thereby participating in the regulation of body weight and glucose homeostasis. Additionally, it exerts anti-inflammatory effects by modulating immune cell responses. METRNL can regulate UCP1 (product code F557Mu) expression,promoting UCP1-mediated thermogenesis in adipocytes.Besides,UCP1 has been identified as an interactor of METRNL, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human METRNL and recombinant mouse UCP1. Briefly, METRNL was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to UCP1-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-METRNL pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37℃, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50 μL stop solution to the wells and read at 450/630nm immediately. The

binding activity of recombinant human METRNL and recombinant mouse UCP1 was shown in Figure 1, the EC50 for this effect is 1.56416 μg/mL.

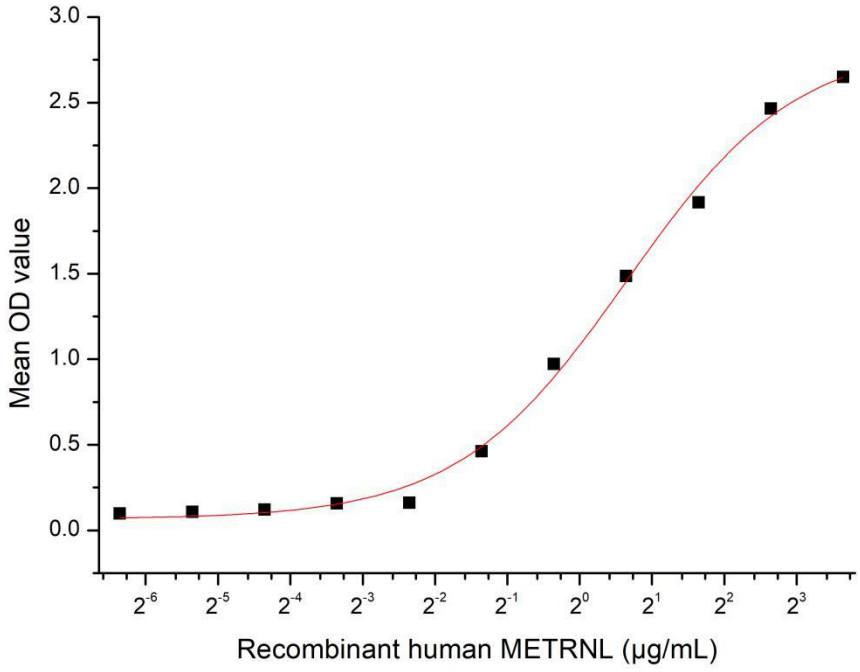


Figure 1. The binding activity of recombinant human METRNL and mouse UCP1

[IDENTIFICATION]

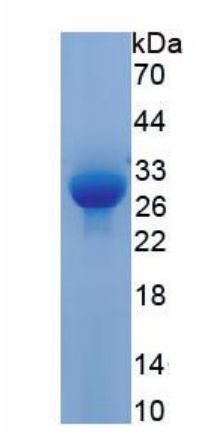


Figure 2. SDS-PAGE

Sample: Active recombinant METRNL, 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.