APA860Mu62 100μg
Active Epithelial Neutrophil Activating Peptide 78 (ENA78)
Organism Species: *Mus musculus (Mouse)*
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

13th Edition (Revised in Aug, 2023)

[PROPERTIES]

Source: Eukaryotic expression.
Host: 293F cell
Residues: Ala41~Ala118
Tags: N-terminal His-tag
Purity: >90%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 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: 9.5
Predicted Molecular Mass: 9.9kDa
Accurate Molecular Mass: 10kDa 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 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]

APSSVIAATELRCVCLTVTPKINPKLIANLEVIPAGPQCPTVEVIAKLKNQKEVCLDPEAPVIKKIIQKI LGSDKKKA

[ACTIVITY]

Epithelial Neutrophil Activating Peptide 78 (ENA78), encoded by the CXCL5 gene, is a key CXC chemokine primarily secreted by epithelial cells, macrophages, and neutrophils. Initially identified for its potent neutrophil-activating and chemotactic activities, it plays critical roles in innate immunity, inflammation, and tissue repair by recruiting and activating neutrophils at sites of infection or injury. ENA78 expression is upregulated in inflammatory conditions like sepsis, asthma, and rheumatoid arthritis, as well as in various cancers where it promotes tumor angiogenesis and metastasis. Its biological functions are mediated through binding to the CXCR2 receptor on target cells, triggering downstream signaling cascades. ENA78 and CXCL2 (GRO β) are homologous CXC chemokines that share the CXCR2 receptor, enabling functional redundancy in neutrophil recruitment.Besides,CXCL2 has been identified as an interactor of ENA78, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant moiuse ENA78 and recombinant human CXCL2. Briefly, ENA78 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to CXCL2-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-ENA78 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 mouse ENA78 and recombinant human CXCL2

was shown in Figure 1, the EC50 for this effect is 1.06326μg/mL.

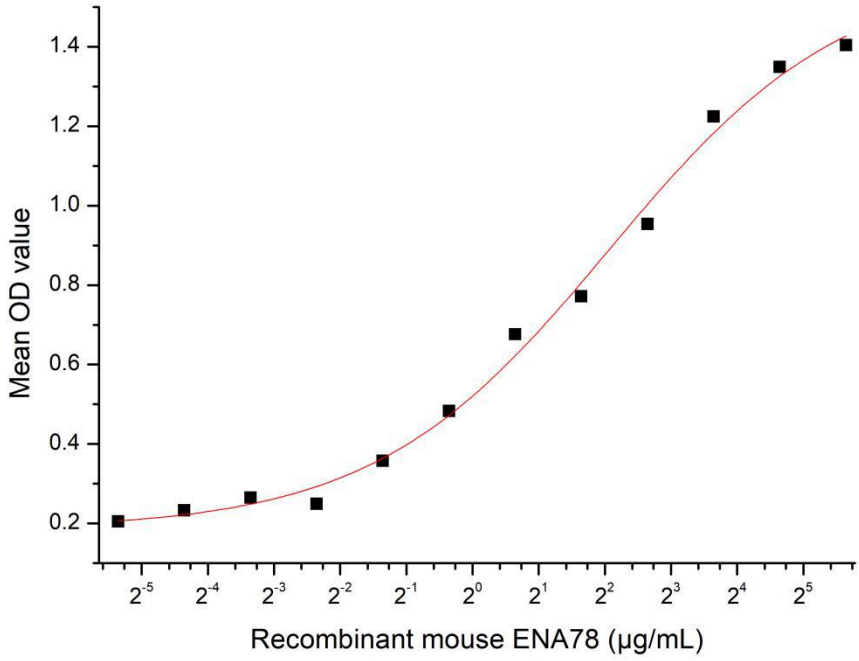


Figure 1. The binding activity of recombinant ENA78 and CXCL2

[IDENTIFICATION]

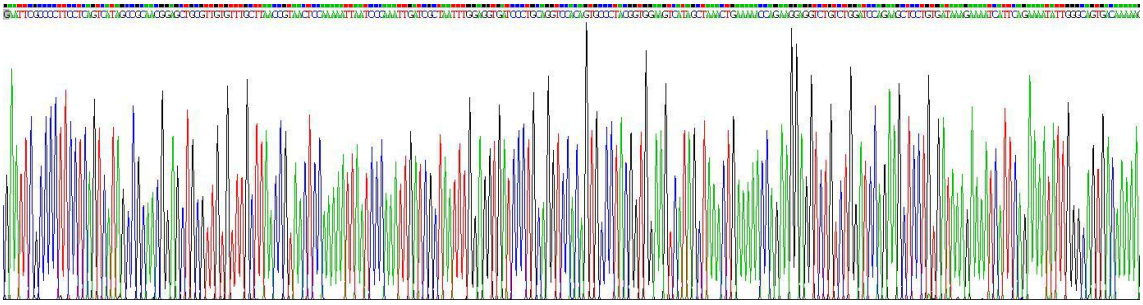


Figure 2. Gene Sequencing (extract)

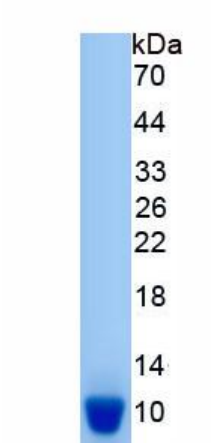


Figure 3. SDS-PAGE

Sample: Active recombinant ENA78, Mouse

[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.