APN221Hu01 100μg
Active Dermokine (DMKN)
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: Gly27~Gly238
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: 5.6
Predicted Molecular Mass: 24.1kDa
Accurate Molecular Mass: 24kDa 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]

GEES TGTNIGEALG HGLGDALSEG
VGKAIGKEAG GAAGSKVSEA LGQGTREAVG TGVRQVPGFG VADALGNRVG
EAAHALGNTG HEIGRQAEDV IRHGADAVRG SWQGVPGHNG AWETSGGHGI
FGSQGGLGGQ GQGNPGGLGT PWVHGYPGNS AGSFGMNPQG APWGQGGNGG
PPNFGTNTQG AVAQPGYGSV RASNQNEGCT NPPPSGSG

[ACTIVITY]

Dermokine (DMKN), a 18-kDa secreted protein encoded by the DMKN gene in the epidermal differentiation complex, is primarily expressed in terminally differentiating keratinocytes of the skin epidermis. Functioning as a matricellular protein, DMKN regulates epidermal barrier formation and inflammation by modulating cell adhesion, cytokine signaling , and cornified envelope maturation. It localizes to the granular layer and stratum corneum, where it interacts with structural proteinsand lipids to enhance skin integrity. Dysregulation of DMKN is linked to inflammatory skin disorders and wound healing defects, highlighting its role in epidermal homeostasis and host defense.Besides,Suprabasin (SBSN) has been identified as an interactor of DMKN, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human DMKN and recombinant human SBSN. Briefly, DMKN was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to SBSN-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-DMKN 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 DMKN and recombinant human SBSN was shown in Figure 1, the EC50 for this effect is 0.54ug/mL.

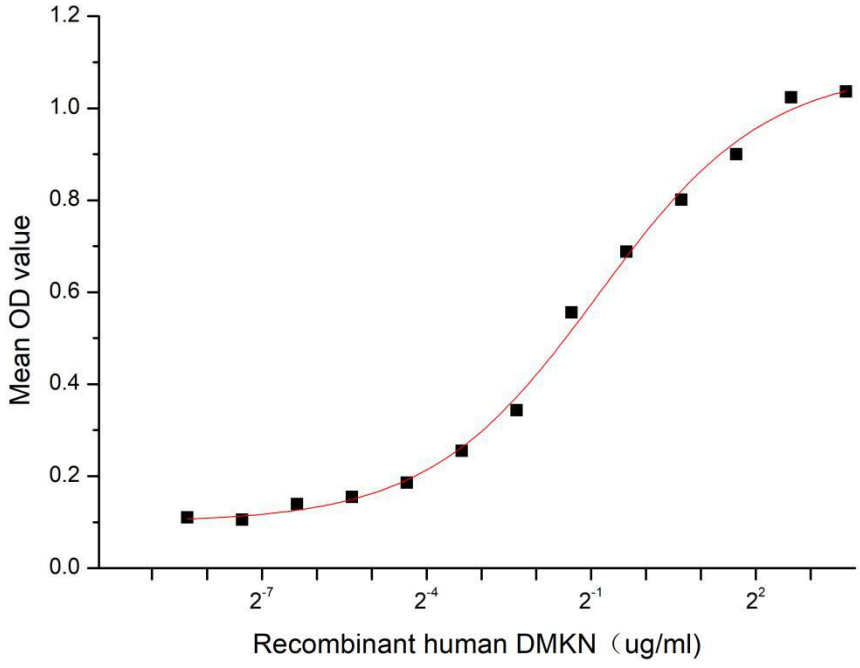

Figure 1. The binding activity of recombinant human DMKN and human recombinant SBSN

[IDENTIFICATION]

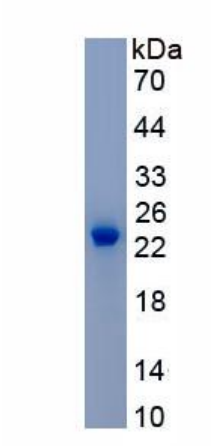

Figure 2. SDS-PAGE

Sample: Active recombinant DMKN, 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.