**APC082Hu01 100μg**
**Active Laminin Gamma 1 (LAMC1)**
**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:** Ile521~Pro772
**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% SKL, 5%Trehalose .
**Original Concentration:** 200μg/mL
**Applications:** Cell culture; Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
**Predicted isoelectric point:** 5.3
**Predicted Molecular Mass:** 29.0kDa
**Accurate Molecular Mass:** 33kDa 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 ]

IDEDGWRAEQ RDGSEASLEW SSERQDIAVI
SDSYFPRYFI APAKFLGKQV LSYGQNLSFS FRVDRRDTRL SAEDLVLEGA
GLRVSVPLIA QGNSYPSETT VKYVFRLHEA TDYPWRPALT PFEFQKLLNN
LTSIKIRGTY SERSAGYLDD VTLASARPGP GVPATWVESC TCPVGYGGQF
CEMCLSGYRR ETPNLGPYSP CVLCACNGHS ETCDPETGVC NCRDNTAGPH
CEKCSDGYYG DSTAGTSSDC QP

## [ ACTIVITY ]

Laminin Gamma 1 (LAMC1), also known as LAMB2, is a member of the laminin family of proteins. LAMC1 is expressed in a variety of tissues and organs, including liver, kidney, heart, and brain. Its expression level is usually regulated by a variety of factors, such as hormones, growth factors, and cytokines. At the cellular level, LAMC1 is mainly distributed in the basement membrane and extracellular matrix of cells, and plays the role of cell adhesion, migration, differentiation and signal transduction by binding to cell surface receptors. Besides, Laminin Alpha 2 (LAMa2) has been identified as an interactor of LAMC1, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human LAMC1 and recombinant mouse LAMa2. Briefly, LAMC1 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to LAMa2-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-LAMC1 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 450/630 nm immediately. The binding activity of recombinant human LAMC1 and recombinant mouse LAMa2 was shown in Figure 1, the EC50 for this effect is 0.03 ug/mL.

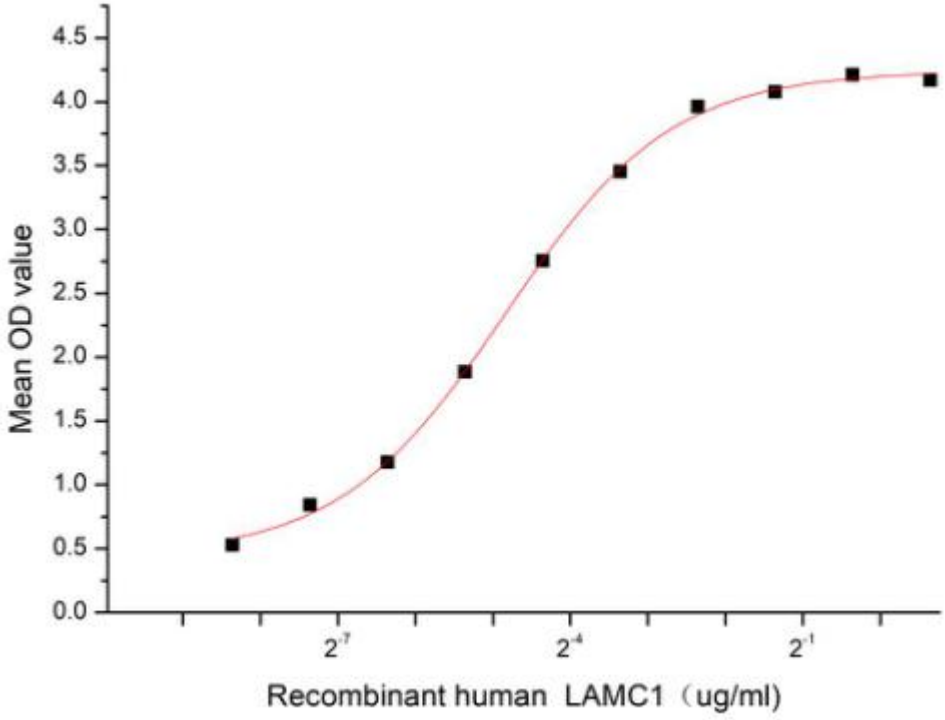


**Figure 1. The binding activity of recombinant human LAMC1 and recombinant mouse LAMa2**

## [ IDENTIFICATION ]

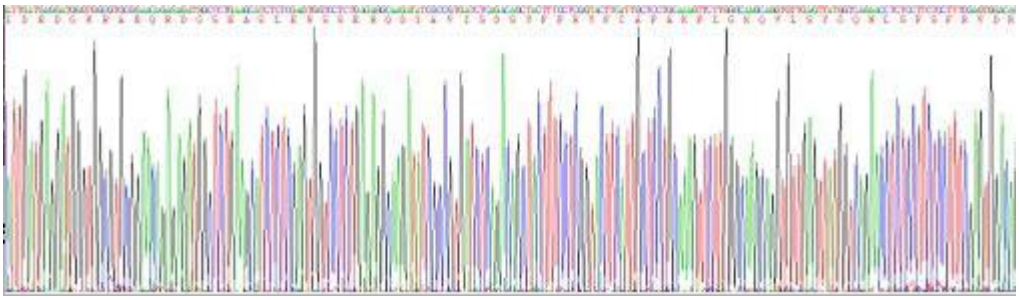

**Figure 2. Gene Sequencing (extract)**

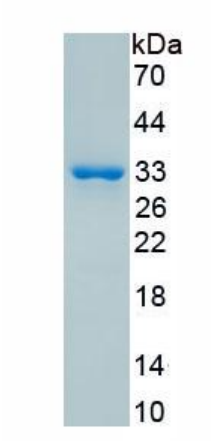


**Figure 3. SDS-PAGE**

**Sample: Active recombinant LAMC1, 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.