

APC028Hu01 100µg
Active Interleukin 28B (IL28B)
Organism Species: *Homo sapiens* (Human)
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Apr, 2016)

[PROPERTIES]

Source: Prokaryotic expression.

Host: *E. coli*

Residues: Val22~Val196

Tags: N-terminal His-tag

Purity: >95%

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

Buffer Formulation: 20mM Tris, 150mM NaCl, pH8.0, containing 0.05% sarcosyl and 5% trehalose.

Applications: Cell culture; Activity Assays.

(May be suitable for use in other assays to be determined by the end user.)

Predicted isoelectric point: 9.0

Predicted Molecular Mass: 21.6kDa

Accurate Molecular Mass: 22kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) 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]

VPVARLRGA LPDARGCHIA QFKSLSPQEL
QAFKRAKDAL EESLLLKDCCK CRSRLFRTW DLRQLQVRER PVALEAELAL
TLKVLEATAD TDPALGDVLD QPLHTLHHIL SQLRACIQPQ PTAGPRTGR
LHHWLHRLQE APKKESPGCL EASVTFNLFR LLTRDLNCVA SGDLCV

[ACTIVITY]

Interleukin 28B (IL28B) is a cytokine distantly related to type I interferons and the IL-10 family. It has function on antiviral, antitumour and immunomodulatory activities. IL28B also plays a critical role in the antiviral host defense, predominantly in the epithelial tissues and acts as a ligand for the heterodimeric class II cytokine receptor composed of IL10RB and IFNLR1, and receptor engagement leads to the activation of the JAK/STAT signaling pathway resulting in the expression of IFN-stimulated genes (ISG), which mediate the antiviral state. Besides, Interleukin 10 Receptor Beta (IL10Rb) has been identified as an interactor of IL28B, thus a binding ELISA assay was conducted to detect the interaction of recombinant human IL28B and recombinant human IL10Rb. Briefly, IL28B were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to IL10Rb-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-IL28B pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50µL stop solution to the wells and read at 450nm immediately. The binding activity of

IL28B and IL10Rb was shown in Figure 1, and this effect was in a dose dependent manner.

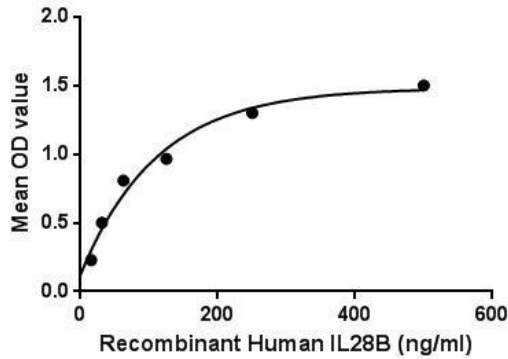


Figure 1. The binding activity of IL28B with IL10Rb.

[IDENTIFICATION]

AGTTCCTGTCGGGCGCTCCGAGGATGCAAGGCGCTCCACATAGGCGGCTTCAGTCCCTGCTCCACAGGAGCTGCAAGGCTTTTAGAGGGCCAAAGATGCTTAGAAGAGTCCCTCTCTGCTGAGGACTGCAAGTGGCGCTCCGCGCTCTCCGAGGAGCTGGGAGCT
V P V A R L R G A L P D A R G C H I A Q F K S L S P Q E L Q A F K R A K D A L E E S I L L K D C K C R S R L F P R T V D L

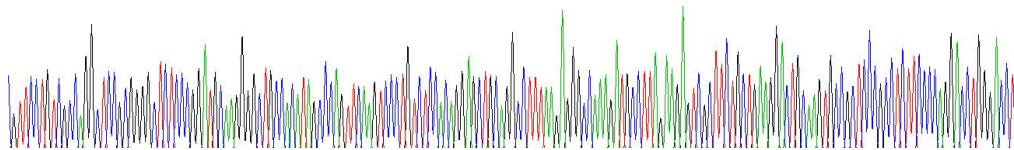


Figure 2. Gene Sequencing (extract)

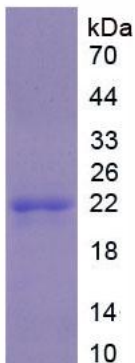


Figure 3. SDS-PAGE

Sample: Active recombinant IL28B, Human

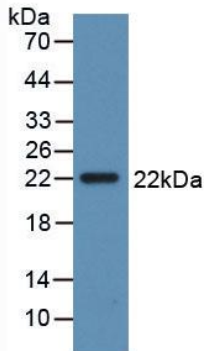


Figure 4. Western Blot

Sample: Recombinant IL28B, Human;

Antibody: Rabbit Anti-Human IL28B Ab (PAC028Hu01)

[IMPORTANT NOTE]

The kit is designed for in vitro and research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.