APB980Hu01 100μg
Active Active Interleukin 33 (IL33)
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: Ser112~Thr270
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: 5.6
Predicted Molecular Mass: 21.7kDa
Accurate Molecular Mass: 14kDa as determined by SDS-PAGE reducing conditions.
Phenomenon explanation:
The possible reasons that the actual band size differs from the predicted are as follows:

1. Splice variants: Alternative splicing may create different sized proteins from the same gene.
2. Relative charge: The composition of amino acids may affects the charge of the protein.
3. Post-translational modification: Phosphorylation, glycosylation, methylation etc.
4. Post-translation cleavage: Many proteins are synthesized as pro-proteins, and then cleaved to give the active form.
5. Polymerization of the target protein: Dimerization, multimerization etc.

[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]

SITGISPIT EYLASLSTYN DQSITFALED ESYEIYVEDL KKDEKKDKVL LSYYESQHPS NESGDGVDGK MLMVTLSPTK DFWLHANNKE HSVELHKCEK PLPDQAFFVL HNMHSNCVSF ECKTDPGVFI GVKDNHLALI KVDSSENLCT ENILFKLSET

[ACTIVITY]

Interleukin 33 is a member of the IL-1 family that potently drives production of T helper-2 (Th2)-associated cytokines. IL33 is a ligand for ST2 (IL1RL1), an IL-1 family receptor that is highly expressed on Th2 cells, mast cells and group 2 innate lymphocytes. IL-33 is expressed by a wide variety of cell types, including fibroblasts, mast cells, dendritic cells, macrophages, osteoblasts, endothelial cells, and epithelial cells. Besides, Interleukin 1 Receptor Like Protein 1 (IL1RL1) has been identified as an interactor of IL33, thus a binding ELISA assay was conducted to detect the interaction of recombinant human IL33 and recombinant human IL1RL1. Briefly, IL33 were diluted serially in PBS, with 0.01% BSA (pH 7.4).

Duplicate samples of 100uL were then transferred to IL1RL1-coated microtiter wells and incubated for 2h at 37℃. Wells were washed with PBST and incubated for 1h with anti-IL33pAb, 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℃. Finally, add 50μL stop solution to the wells and read at 450nm immediately. The binding activity of IL33and IL1RL1 was shown in Figure 1, and this effect was in a dose dependent manner.

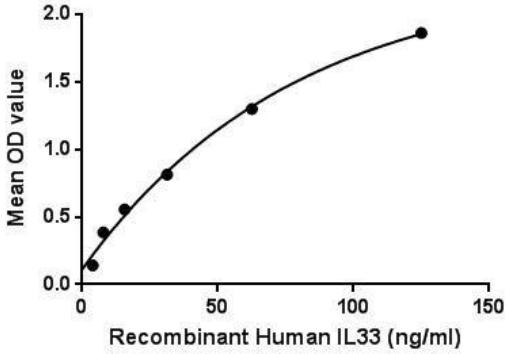

Figure 1. The binding activity of IL33 with IL1RL1.

[IDENTIFICATION]

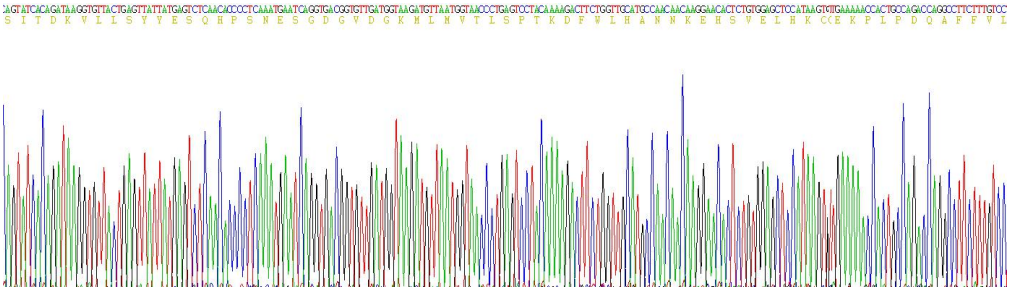

Figure 2. Gene Sequencing (extract)

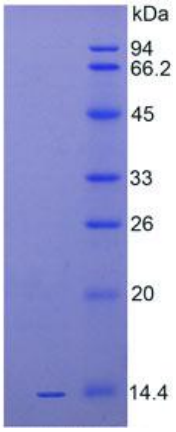

Figure 3. SDS-PAGE

Sample: Active recombinant IL33, Human

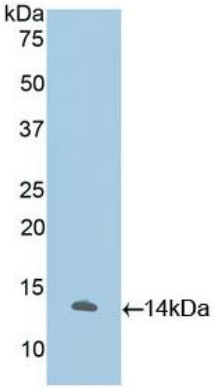

Figure 4. Western Blot

Sample: Recombinant IL33, Human;

Antibody: Rabbit Anti-Human IL33 Ab (PAB980Hu01)

[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.