APA223Ra01 100μg
Active Interleukin 1 Receptor Antagonist (IL1RA)
Organism Species: *Rattus norvegicus (Rat)*
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: His27~Gln178
Tags: N-terminal His-tag
Purity: >92%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 0.01% SKL, 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: 6.7
Predicted Molecular Mass: 21.1kDa
Accurate Molecular Mass: 21kDa 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]

HPAGKRPCKMQAFRIWDTNQKTFYLRNNQLIAGYLQGPNTKLEEKIDMVPIDFRNVFLGIHGGKLCLSCVKSGDDTKLQLEEVNITDL
NKNKEEDKRFTFIRSETGPTTSFESLACPGWFLCTTLEADHPVSLTNTPKEPCTVTKFYFQEDQ

[ACTIVITY]

The interleukin-1 receptor antagonist (IL-1RA) is a member of the interleukin 1 cytokine family. IL1Ra is secreted by various types of cells including immune cells, epithelial cells, and adipocytes, and is a natural inhibitor of the pro-inflammatory effect of IL1β. IL-1RN is an agent that binds to the cell surface interleukin-1 receptor (IL-1R), which would prevent IL-1 from intracellular signal transduction. Thus, a binding ELISA assay was conducted to detect the interaction of recombinant rat IL-1RN and recombinant rat IL-1R1. Briefly, IL-1RA were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100μl were then transferred to IL-1R1-coated microtiter wells and incubated for 2h at 37℃. Wells were washed with PBST and incubated for 1h with anti-IL-1RN 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℃. Finally, add 50μl stop solution to the wells and read at 450nm immediately. The binding activity of IL-1RA and IL-1R1 was shown in Figure 1, and this effect was in a dose dependent manner.

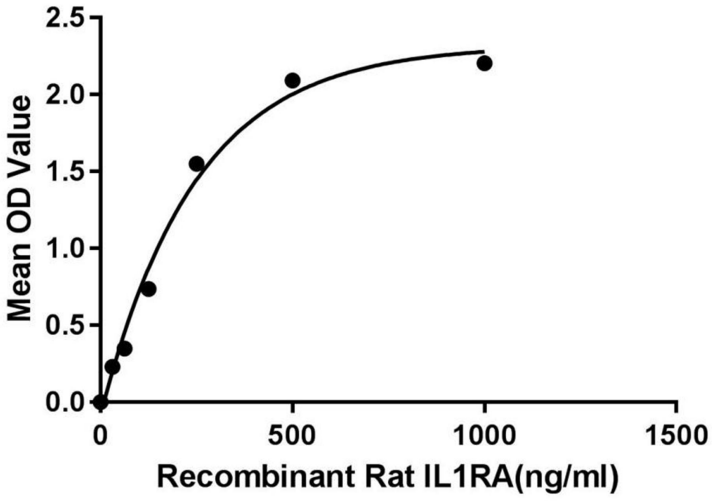

Figure 1. The binding activity of IL1RA with IL1R1

[IDENTIFICATION]

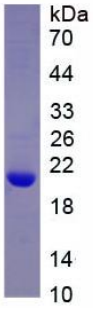

Figure 2. SDS-PAGE

Sample: Active recombinant IL1RA, Rat

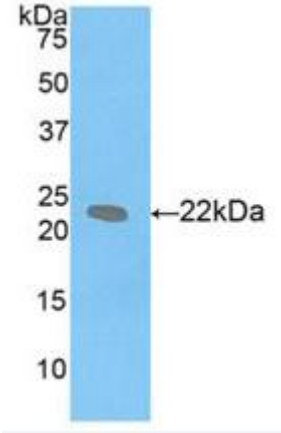

Figure 3. Western Blot

Sample: Recombinant IL1RA, Rat;

Antibody: Rabbit Anti-Rat IL1RA Ab (PAA223Ra01)

[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.