

APB505Hu02 100µg
Active Interleukin 3 Receptor Alpha (IL3Ra)
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: Thr19~Arg305

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% 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: 8.4

Predicted Molecular Mass: 36.7kDa

Accurate Molecular Mass: 40kDa 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 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]

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TKEDPNPPITNLRMKAKAQQLTWDLNRNVTDIECVKDADYSMPAVNNSYCQFGAISLCEVTNYTVRVANPPFSTWILFPENSCKPWAG  
AENLTCHIHVDVDFLSCSNVAVGPGAPADVQYDLYLNVANRRQYECLEHYKTDAGQTRIGCRFDDISRLSSGSSSHILVRGRSAAF  
GIPCTDKFVVFSQIEILTPPNMTAKCNKTHSFMHWKMRSHFNRFYELQIQKRMQPVITEQVRDRTSFQLLNPGTYTVQIRARERVYEF  
L  
SAWSTPQRFECQDEEGANTRAWR
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[ACTIVITY]

Interleukin 3 receptor alpha (IL3RA), also known as CD123 (Cluster of Differentiation 123), is a subunit of the functional high-affinity human IL-3 receptor which is a heterodimer. The alpha subunit alone binds IL-3 with low affinity. The beta subunit does not bind IL-3 by itself but is required for the high-affinity binding of IL-3 to the heterodimeric receptor complex. Both the alpha and the beta subunits are members of the cytokine receptor superfamily. A binding ELISA assay was conducted to detect the interaction of recombinant human Interleukin 3 Receptor Alpha and recombinant human Interleukin 3. Briefly, IL3 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 µl were then transferred to IL3Ra-coated microtiter wells and incubated for 2h at 37 °C . Wells were washed with PBST and incubated for 1h with anti-IL3 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 IL3Ra and IL3 was shown in Figure 1.

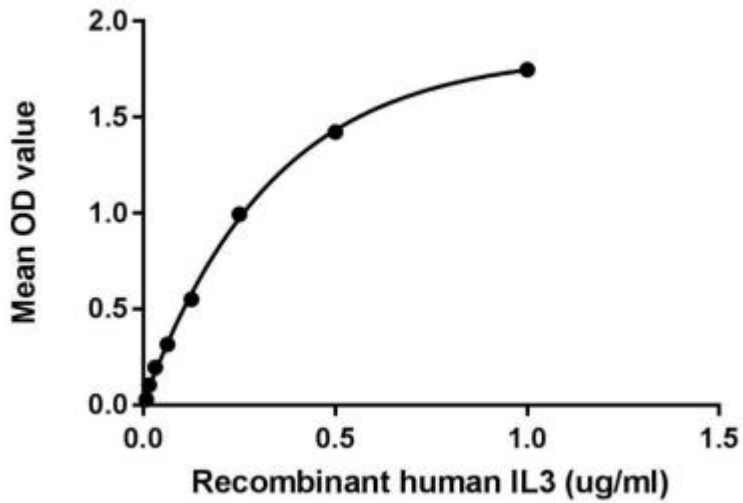


Figure 1. The binding activity of IL3Ra with IL3

[IDENTIFICATION]

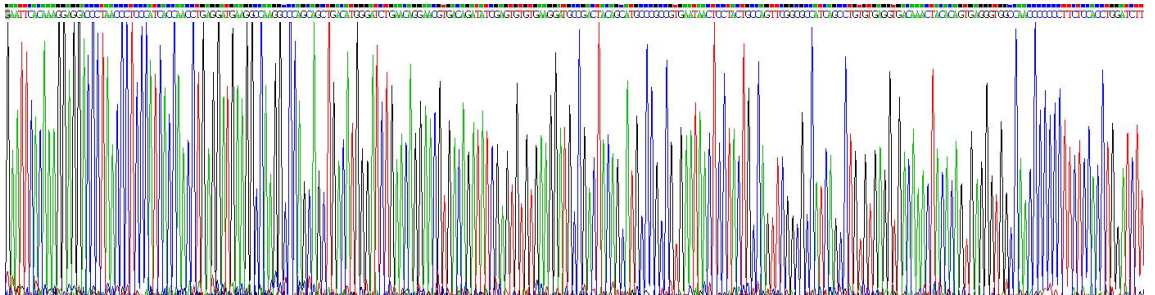


Figure 2. Gene Sequencing (extract)

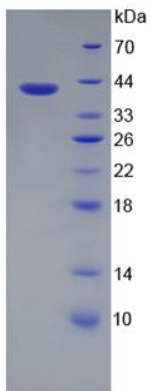


Figure 3. SDS-PAGE

Sample: Active recombinant IL3Ra, Human

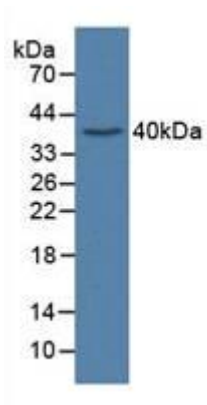


Figure 4. Western Blot

Sample: Recombinant IL3Ra, Human;

Antibody: Rabbit Anti-Human IL3Ra Ab (PAB505Hu02)

[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.