

APB505Hu61 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: Eukaryotic expression.

Host: 293F cell

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 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: 34.6kDa

Accurate Molecular Mass: 44-70kDa 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 10mM PBS (pH7.6) 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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TKEDPNPPIITNLRMKAKAQQLTWDLNRRNVTDIIECVKDADYSMPAVNNSYCFGAISLCEVTNYTVRVANPPFSTWILFPENSGKPWAG  
AENLTCWIHDVDFLSCSWAVGPGAPADVQYDLYLNVANRRRQVYECLHYKTDAGQTRIGCRFDDISRLSSGSQSSHILVGRSAAFGIP  
CTDKFVFSQIEILTPPMTAKCNKTHSFMHWKMRSHFNKFRYELQIQKRMQPVITEQVRDRTSFQLLNPGTYTVQIRARERVEFL  
SAWSTPQRFECQEEGANTRAWR
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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

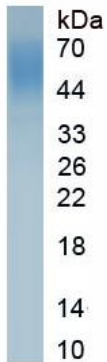


Figure 3. SDS-PAGE

Sample: Active recombinant IL3Ra, 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.