

For Research Use Only

# IL3RA/CD123 Recombinant antibody, PBS Only (Capture)

Catalog Number: 83243-3-PBS



## Basic Information

<b>Catalog Number:</b> 83243-3-PBS	<b>GenBank Accession Number:</b> BC035407	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ug, Concentration: 1 mg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 3563	<b>CloneNo.:</b> 240042E5
<b>Source:</b> Rabbit	<b>ENSEMBL Gene ID:</b> ENSG00000185291	
<b>Isotype:</b> IgG	<b>UNIPROT ID:</b> P26951	
<b>Immunogen Catalog Number:</b> AG4452	<b>Full Name:</b> interleukin 3 receptor, alpha (low affinity)	
	<b>Calculated MW:</b> 378 aa, 43 kDa	
	<b>Observed MW:</b> 70 kDa	

## Applications

**Tested Applications:**  
WB, IHC, Sandwich ELISA, Indirect ELISA, Sample test

**Species Specificity:**  
human

## Product Information

83243-3-PBS targets IL3RA/CD123 as part of a matched antibody pair:

MP00176-4: 83243-3-PBS capture and 83243-4-PBS detection (validated in Sandwich ELISA)

Unconjugated rabbit recombinant monoclonal antibody in PBS only (BSA and azide free) storage buffer at a concentration of 1 mg/mL, ready for conjugation. Created using Proteintech's proprietary in-house recombinant technology. Recombinant production enables unrivalled batch-to-batch consistency, easy scale-up, and future security of supply.

This conjugation ready format makes antibodies ideal for use in many applications including: ELISAs, multiplex assays requiring matched pairs, mass cytometry, and multiplex imaging applications. Antibody use should be optimized by the end user for each application and assay.

## Background Information

Interleukin-3 receptor subunit alpha (IL3RA), also known as CD123, belongs to the cytokine receptor family. It is a glycoprotein containing an extracellular domain, involving a predicted Ig-like domain, two FnIII domains, a transmembrane domain and an intracellular domain (PMID: 24513123). IL3RA is expressed on hematopoietic progenitor cells, plasmacytoid dendritic cells, basophils, monocytes, some B cells, and in a variety of hematologic malignancies (PMID: 10527461; 34855461). IL-3 initially binds to IL3RA and subsequently recruits the beta chain (CD131) to form the high-affinity receptor, resulting in the activation of a series of signaling pathways including the JAK/STAT, Ras-MAPK, and phosphatidylinositol 3-kinase pathways (PMID: 29296749). IL-3R signaling regulates the proliferation, survival, and differentiation of hematopoietic cells.

## Storage

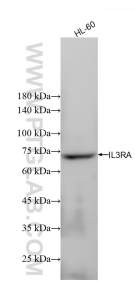
**Storage:**  
Store at -80°C.

**Storage Buffer:**  
PBS Only

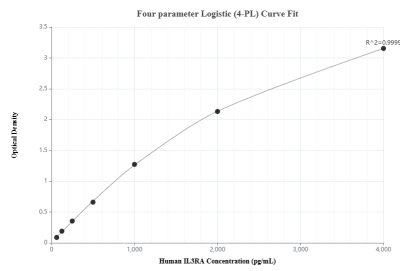
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

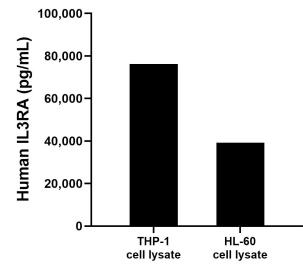
Selected Validation Data



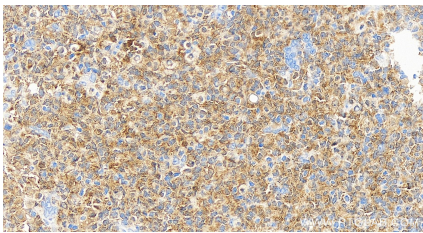
HL-60 cells were subjected to SDS PAGE followed by western blot with 83243-3-RR (IL3RA/CD123 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 83243-3-PBS in a different storage buffer formulation.



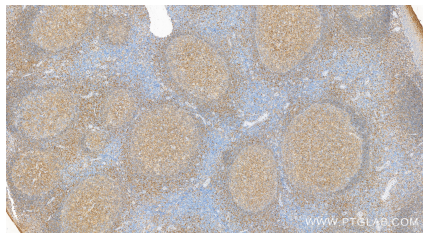
Sandwich ELISA standard curve of MP00176-4, Human IL3RA Recombinant Matched Antibody Pair - PBS only. 83243-3-PBS was coated to a plate as the capture antibody and incubated with serial dilutions of standard Ag4452. 83243-4-PBS was HRP conjugated as the detection antibody. Range: 62.5-4000 pg/mL



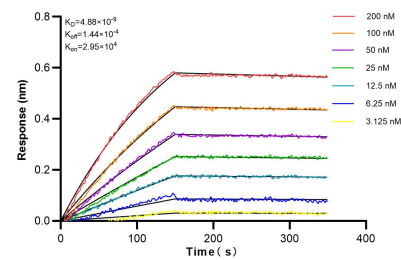
THP-1 and HL-60 cell lysates were measured. The human IL3RA concentration of detected samples was determined to be 76,268.8 pg/mL (based on a 4.0 mg/mL extract load) in THP-1 cell lysate and 39,279.2 pg/mL (based on a 4.3 mg/mL extract load) in HL-60 cell lysate.



Immunohistochemical analysis of paraffin-embedded human tonsillitis tissue slide using 83243-3-RR (IL3RA/CD123 antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 83243-3-PBS in a different storage buffer formulation.



Immunohistochemical analysis of paraffin-embedded human tonsillitis tissue slide using 83243-3-RR (IL3RA/CD123 antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 83243-3-PBS in a different storage buffer formulation.



Bi-layer interferometry (BLI) kinetic assays of 82672-1-RR against Human IL3RA/CD123 were performed. The affinity constant is 4.88 nM.