

## TotalSeq™-C0064 anti-human CD123 Antibody

<b>Catalog# / Size</b>	306045 / 10 µg
<b>Clone</b>	6H6
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	IL-3R $\alpha$ , IL-3 Receptor alpha
<b>Isotype</b>	Mouse IgG1, $\kappa$
<b>Barcode Sequence</b>	CTTCACTCTGTCAGG
<b>Description</b>	CD123 is the 70 kD transmembrane $\alpha$ chain of the IL-3 receptor. Alone, CD123 binds IL-3 with low affinity; when CD123 associates with CDw131 (common $\beta$ chain), it binds IL-3 with high affinity. CD123 does not transduce intracellular signals upon binding IL-3 and requires the $\beta$ chain for this function. CD123 is expressed by myeloid precursors, macrophages, dendritic cells, mast cells, basophils, megakaryocytes, and some B cells.

### Product Details

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<b>Verified Reactivity</b>	Human
<b>Reported Reactivity</b>	Rhesus
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Immunogen</b>	Human IL-3R $\alpha$ transfected COS cells.
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 1 mM EDTA.
<b>Preparation</b>	The antibody was purified by chromatography and conjugated with TotalSeq™-C oligomer under optimal conditions.
<b>Concentration</b>	0.5 mg/ml
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">PG - Quality tested</a>
<b>Recommended Usage</b>	<p>Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> and the oligomer sequence is confirmed by sequencing. TotalSeq™-C antibodies are compatible with 10x Genomics Chromium Single Cell Immune Profiling <a href="#">Solution</a>.</p> <p>To maximize performance, it is strongly recommended that the reagent be titrated for each application, and that you centrifuge the antibody dilution before adding to the cells at 14,000xg at 2 - 8°C for 10 minutes. Carefully pipette out the liquid avoiding the bottom of the tube and add to the cell suspension. For Proteogenomics analysis, the suggested starting amount of this reagent for titration is <math>\leq 1.0</math> µg per million cells in 100 µL volume. Refer to the corresponding TotalSeq™ protocol for specific staining instructions.</p> <p>Buyer is solely responsible for determining whether Buyer has all intellectual property rights that are necessary for Buyer's intended uses of the BioLegend TotalSeq™ products. For example, for any technology platform Buyer uses with TotalSeq™, it is Buyer's sole responsibility to determine whether it has all necessary third party intellectual property rights to use that platform and TotalSeq™ with that platform.</p>
<b>Application Notes</b>	Clone 6H6 does not inhibit IL-3 binding to low- or high-affinity IL-3Rs. Additional reported applications (for the relevant formats) include: Western blotting <sup>1</sup> , immunoprecipitation <sup>1</sup> , and immunohistochemical staining of acetone-fixed frozen sections <sup>2</sup> and also paraformaldehyde fixed paraffin embedded tissue <sup>7</sup> .
<b>Additional Product Notes</b>	TotalSeq™ reagents are designed to profile protein levels at a single cell level following an optimized protocol similar to the CITE-seq workflow. A compatible single cell device (e.g. <a href="#">10x Genomics Chromium System and Reagents</a> ) and sequencer (e.g. Illumina analyzers) are required.

Please contact [technical support](#) for more information, or visit [biolegend.com/totalseq](http://biolegend.com/totalseq).

The barcode flanking sequences are CGGAGATGTGTATAAGAGACAGNNNNNNNNNN (PCR handle), and NNNNNNNNCCCATATAAGA\*A\*A (capture sequence). N represents either randomly selected A, C, G, or T, and \* indicates a phosphorothioated bond, to prevent nuclease degradation.

View more applications data for this product in our [Scientific Poster Library](#).

### Application References

(PubMed link indicates BioLegend citation)

1. Sun Q, *et al.* 1996. *Blood* 87:83. (IP, WB)
2. Herling M, *et al.* 2003. *Blood* 101:5007. (IHC)
3. Charles N, *et al.* 2010. *Nat. Med.* 16:701. (FC) [PubMed](#)
4. Martin-Gayo E, *et al.* 2010. *Blood* 115:5366. [PubMed](#)
5. Chen SC, *et al.* 2010. *Arch Dermatol Res.* 302:113. [PubMed](#)
6. Liu Y, *et al.* 2012. *Food Chem Toxicol.* 50:1920. [PubMed](#)
7. Peduzzi E, *et al.* 2007. *J. Invest. Dermatol.* 127:638. (IHC)

### Product Citations

1. Shangguan S, *et al.* 2021. *Elife.* 10:. [PubMed](#)

### RRID

AB\_2800789 (BioLegend Cat. No. 306045)

## Antigen Details

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<b>Structure</b>	Ig superfamily, type I transmembrane glycoprotein, associates with CDw131, 70 kD
<b>Distribution</b>	Myeloid precursors, basophils, mast cells, macrophages, dendritic cells, megakaryocytes, subset of lymphocytes
<b>Function</b>	Hematopoietic cell proliferation, differentiation
<b>Ligand/Receptor</b>	IL-3
<b>Cell Type</b>	Basophils, Dendritic cells, Hematopoietic stem and progenitors, Lymphocytes, Macrophages, Mast cells, Megakaryocytes
<b>Biology Area</b>	Immunology
<b>Molecular Family</b>	CD Molecules, Cytokine/Chemokine Receptors
<b>Antigen References</b>	1. Miyajima A, <i>et al.</i> 1993. <i>Blood</i> 82:1960.
<b>Gene ID</b>	<a href="#">3563</a>

## Related Protocols

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[TotalSeq™-B or -C with 10x Feature Barcoding Technology](#)

## Other Formats

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Biotin anti-human CD123, PE anti-human CD123, Purified anti-human CD123, PE/Cyanine5 anti-human CD123, PE/Cyanine7 anti-human CD123, APC anti-human CD123, FITC anti-human CD123, PerCP/Cyanine5.5 anti-human CD123, Brilliant Violet 421™ anti-human CD123, Brilliant Violet 650™ anti-human CD123, Brilliant Violet 510™ anti-human CD123, Alexa Fluor® 647 anti-human CD123, Brilliant Violet 605™ anti-human CD123, Purified anti-human CD123 (Maxpar® Ready), Brilliant Violet 711™ anti-human CD123, Brilliant Violet 785™ anti-human CD123, PE/Dazzle™ 594 anti-human CD123, Alexa Fluor® 488 anti-human CD123, TotalSeq™-A0064 anti-human CD123, Alexa Fluor® 700 anti-human CD123, APC/Fire™ 750 anti-human CD123, Pacific Blue™ anti-human CD123, TotalSeq™-C0064 anti-human CD123, TotalSeq™-B0064 anti-human CD123, TotalSeq™-D0064 anti-human CD123, PerCP anti-human CD123, GMP PE/Cyanine7 anti-human CD123, APC/Fire™ 810 anti-human CD123 Antibody

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