

## Purified anti-human CD8a Antibody

<b>Catalog# / Size</b>	300901 / 25 µg 300902 / 100 µg
<b>Clone</b>	HIT8a
<b>Regulatory Status</b>	RUO
<b>Workshop</b>	V CD08.10
<b>Other Names</b>	T8, Leu2
<b>Isotype</b>	Mouse IgG1, κ
<b>Description</b>	CD8a is a 32-34 kD type I glycoprotein. It forms a homodimer (CD8a/a) or heterodimer (CD8a/b) with CD8b. CD8, also known as T8 and Leu2, is a member of the immunoglobulin superfamily found on the majority of thymocytes, a subset of peripheral blood T cells, and NK cells (which express almost exclusively CD8a homodimers). CD8 acts as a co-receptor with MHC class I-restricted T cell receptors in antigen recognition and T cell activation and has been shown to play a role in thymic differentiation. Two domains in CD8a are important for function: the extracellular IgSF domain binds the α3 domain of MHC class I and the cytoplasmic CXCP motif binds the tyrosine kinase p56 Lck.

### Product Details

---

<b>Verified Reactivity</b>	Human
<b>Reported Reactivity</b>	Chimpanzee, Common Marmoset
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
<b>Preparation</b>	The antibody was purified by affinity chromatography.
<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>Application</b>	<a href="#">FC - Quality tested</a> <a href="#">IHC-F - Reported in the literature, not verified in house</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is ≤ 2.0 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
<b>Application Notes</b>	Clone HIT8a recognizes the alpha chain of CD8 <sup>5</sup> . It does not block the binding of RPA-T8 antibody to CD8a.  Additional reported applications of this antibody (for the relevant formats) include: immunohistochemical staining of acetone-fixed frozen tissue sections <sup>5,6</sup> . This clone was tested in-house and does not work on formalin fixed paraffin-embedded (FFPE) tissue.
<b>Application References</b>	<ol style="list-style-type: none"> <li>Schlossman S, <i>et al.</i> Eds. 1995. Leucocyte Typing V. Oxford University Press. New York.</li> <li>Knapp W. 1989. Leucocyte Typing IV. Oxford University Press New York.</li> <li>Barclay N, <i>et al.</i> 1997. The Leucocyte Antigen Facts Book. Academic Press Inc. San Diego.</li> <li>Awasthi, S., <i>et al.</i> 2011. <i>J. Virol</i> 85:10472. <a href="#">PubMed</a></li> <li>Coppieters KT, <i>et al.</i> 2012. <i>J. Exp. Med.</i> 209:51. (IHC, epitope)</li> <li>Suzuki F, <i>et al.</i> 2012. <i>Arthritis Res. Ther.</i> 14:R48. (IHC)</li> </ol>
<b>(PubMed link indicates BioLegend citation)</b>	
<b>Product Citations</b>	<ol style="list-style-type: none"> <li>Ibidapo-Obe O, <i>et al.</i> 2020. <i>Cell Mol Gastroenterol Hepatol.</i> 9:661. <a href="#">PubMed</a></li> <li>Gao H, <i>et al.</i> 2021. <i>J Virol.</i> :. <a href="#">PubMed</a></li> </ol>

3. Kaufmann M, *et al.* 2021. *Med.* 2(3):296-312.e8. [PubMed](#)
4. Song S, *et al.* 2021. *Commun Biol.* 4:1338. [PubMed](#)
5. Moquin-Beaudry G, *et al.* 2022. *Cell Rep Methods.* 2:100153. [PubMed](#)
6. Kondo H, *et al.* 2022. *Front Immunol.* 13:836923. [PubMed](#)
7. Li Y, *et al.* 2019. *Front Immunol.* 0.460416667. [PubMed](#)
8. Freund L, *et al.* 2020. *J Invest Dermatol.* 145:140. [PubMed](#)
9. Agrawal N, *et al.* 2018. *Front Immunol.* 2.053472222. [PubMed](#)
10. Chiou SH, *et al.* 2021. *Immunity.* 54:586. [PubMed](#)

**RRID** AB\_314105 (BioLegend Cat. No. 300901)  
 AB\_314106 (BioLegend Cat. No. 300902)

## Antigen Details

<b>Structure</b>	Ig superfamily, homodimer or heterodimer with CD8 $\beta$ , 32-34 kD
<b>Distribution</b>	Majority of thymocytes, T cell subset, NK cells
<b>Function</b>	MHC class I co-receptor, thymic differentiation, T cell activation
<b>Ligand/Receptor</b>	MHC Class I molecules
<b>Cell Type</b>	Dendritic cells, NK cells, T cells, Thymocytes, Tregs
<b>Biology Area</b>	Immunology
<b>Molecular Family</b>	CD Molecules
<b>Antigen References</b>	1. Barclay N, <i>et al.</i> 1993. <i>The Leucocyte Antigen FactsBook.</i> Academic Press Inc. San Diego.
<b>Gene ID</b>	<a href="#">925</a>

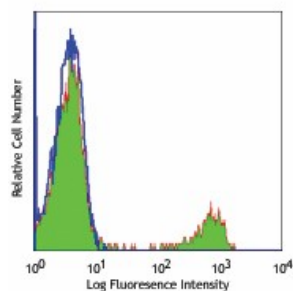
## Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

## Other Formats

APC anti-human CD8a, Biotin anti-human CD8a, FITC anti-human CD8a, PE anti-human CD8a, PE/Cyanine5 anti-human CD8a, Purified anti-human CD8a, PE/Cyanine7 anti-human CD8a, Alexa Fluor® 488 anti-human CD8a, Alexa Fluor® 647 anti-human CD8a, Alexa Fluor® 700 anti-human CD8a, PerCP anti-human CD8a, PerCP/Cyanine5.5 anti-human CD8a, APC/Cyanine7 anti-human CD8a, Pacific Blue™ anti-human CD8a, PE/Dazzle™ 594 anti-human CD8a, APC/Fire™ 750 anti-human CD8a, Brilliant Violet 510™ anti-human CD8a, Brilliant Violet 605™ anti-human CD8a

## Product Data



Human peripheral blood lymphocytes stained with purified HIT8a, followed by anti - mouse IgGs FITC

\*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, [www.biolegend.com/ordering#license](http://www.biolegend.com/ordering#license)). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 [www.biolegend.com](http://www.biolegend.com)  
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587