

APC/Cyanine7 anti-human CD8a Antibody

Catalog# / Size	300925 / 25 tests 300926 / 100 tests
Clone	HIT8a
Regulatory Status	RUO
Workshop	V CD08.10
Other Names	T8, Leu2
Isotype	Mouse IgG1, κ
Description	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 $\alpha 3$ domain of MHC class I and the cytoplasmic CXCP motif binds the tyrosine kinase p56 Lck.

Product Details

Verified Reactivity	Human
Reported Reactivity	Chimpanzee, Common Marmoset
Antibody Type	Monoclonal
Host Species	Mouse
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography and conjugated with APC/Cyanine7 under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is 5 μ l per million cells in 100 μ l staining volume or 5 μ l per 100 μ l of whole blood.
Excitation Laser	Red Laser (633 nm)
Application Notes	Clone HIT8a recognizes the alpha chain of CD8 ⁵ . 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 ^{5,6} . This clone was tested in-house and does not work on formalin fixed paraffin-embedded (FFPE) tissue.
Additional Product Notes	BioLegend is in the process of converting the name APC/Cy7 to APC/Cyanine7. The dye molecule remains the same, so you should expect the same quality and performance from our APC/Cyanine7 products. Please contact Technical Service if you have any questions.
Application References	<ol style="list-style-type: none"> Schlossman S, <i>et al.</i> Eds. 1995. Leucocyte Typing V. Oxford University Press. New York. Knapp W. 1989. Leucocyte Typing IV. Oxford University Press New York. Barclay N, <i>et al.</i> 1997. The Leucocyte Antigen Facts Book. Academic Press Inc. San Diego.
(PubMed link indicates BioLegend citation)	

4. Awasthi, S., *et al.* 2011. *J. Virol* 85:10472. [PubMed](#)
5. Coppieters KT, *et al.* 2012. *J. Exp. Med.* 209:51. (IHC, epitope)
6. Suzuki F, *et al.* 2012. *Arthritis Res. Ther.* 14:R48. (IHC)

Product Citations

1. Corleis B, *et al.* 2019. *Cell Rep.* 26:1409. [PubMed](#)
2. Delacher M, *et al.* 2021. *Immunity.* 54(4):702-720.e17. [PubMed](#)
3. Kobayashi Y, *et al.* 2020. *Int J Oncol.* 999:56. [PubMed](#)
4. Islas-Vazquez L, *et al.* 2020. *Biology (Basel).* 9:00. [PubMed](#)
5. Freeman A, *et al.* 2014. *PLoS One.* 9:110928. [PubMed](#)
6. Lee HJ, *et al.* 2017. *Oncotarget.* 8:113345. [PubMed](#)
7. Grant R, *et al.* 2021. *Methods Protoc.* 4:.. [PubMed](#)
8. Zavidij O, *et al.* 2020. *Nat Cancer.* 0.384027778. [PubMed](#)
9. Fang Y, *et al.* 2021. *J Clin Invest.* 131:00:00. [PubMed](#)
10. Burke MT, *et al.* 2017. *Transplant Direct.* 3:e171. [PubMed](#)
11. Chen J, *et al.* 2017. *Sci Rep.* 10.1038/s41598-017-11056-9. [PubMed](#)
12. Corrado M, *et al.* 2020. *Cell Metab.* 32:981. [PubMed](#)

RRID

AB_10612924 (BioLegend Cat. No. 300925)
 AB_10613636 (BioLegend Cat. No. 300926)

Antigen Details

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

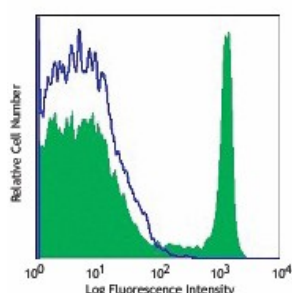
Related Protocols

[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 HIT8a APC/Cyanine7

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