

APC anti-human CD8a Antibody

Catalog# / Size	300911 / 25 tests 300912 / 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 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.

Application References

(PubMed link indicates BioLegend citation)

- Schlossman S, *et al.* Eds. 1995. Leucocyte Typing V. Oxford University Press. New York.
- Knapp W. 1989. Leucocyte Typing IV. Oxford University Press New York.
- Barclay N, *et al.* 1997. The Leucocyte Antigen Facts Book. Academic Press Inc. San Diego.
- Awasthi, S., *et al.* 2011. *J. Virol* 85:10472. [PubMed](#)
- Coppieters KT, *et al.* 2012. *J. Exp. Med.* 209:51. (IHC, epitope)
- Suzuki F, *et al.* 2012. *Arthritis Res. Ther.* 14:R48. (IHC)

Product Citations

1. Li C, *et al.* 2022. J Exp Med. 219:. [PubMed](#)
2. Rademacher MJ, *et al.* 2021. Sci Rep. 11:8321. [PubMed](#)
3. Rodriguez-García A, *et al.* 2020. Mol Ther. 28:548. [PubMed](#)
4. Park JA, *et al.* 2021. Journal for ImmunoTherapy of Cancer. 9(5):. [PubMed](#)
5. Zirngibl F, *et al.* 2021. J Immunother Cancer. 9:. [PubMed](#)
6. Perelman SS, *et al.* 2021. Nat Microbiol. 6:731. [PubMed](#)
7. Alkasalias T, *et al.* 2022. Cell Death Discov. 8:464. [PubMed](#)
8. Tatovic D, *et al.* 2015. J Immunol. 195: 386 - 392. [PubMed](#)
9. Huang Y, *et al.* 2020. FASEB J. 34:1768. [PubMed](#)
10. Iizasa E, *et al.* 2021. Nat Commun. 12:2299. [PubMed](#)
11. Cornelius C *et al.* 2016. EBioMedicine. 11:58-67 . [PubMed](#)
12. Holokai L, *et al.* 2020. Cancers (Basel). 12:00. [PubMed](#)
13. Chulpanova DS, *et al.* 2021. Biology (Basel). 10:. [PubMed](#)
14. Uniken Venema WT, *et al.* 2019. Gastroenterology. 156:812. [PubMed](#)
15. Park JA, *et al.* 2020. J Hematol Oncol. 0.6611111111. [PubMed](#)
16. Wallace JG, *et al.* 2021. J Allergy Clin Immunol. 147:743. [PubMed](#)
17. Lamsfus Calle C, *et al.* 2021. Front Immunol. 12:625712. [PubMed](#)
18. Ernst W, *et al.* 2013. Infect Immun . 81:1520. [PubMed](#)
19. Niu M, *et al.* 2021. Cell Reports. 36(8):109611. [PubMed](#)
20. Deng W, *et al.* 2021. Emerg Microbes Infect. 10:1272. [PubMed](#)

RRID

AB_314115 (BioLegend Cat. No. 300911)
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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. The Leucocyte Antigen FactsBook. Academic Press Inc. San Diego.
Gene ID	925

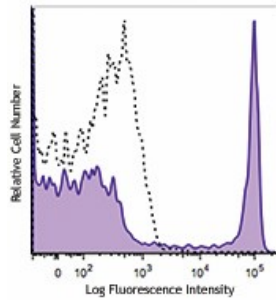
Related Protocols

[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 (clone HIT8a) APC (filled histogram) or mouse IgG1, κ APC isotype control (open histogram).

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