BioLegend
From Revvity

Version: 1 Revision Date: 01/23/2026

PE/Fire™ 744 anti-human CD8 Antibody

Catalog# / Size	344768 / 25 tests 344788 / 100 tests
Clone	SK1
Regulatory Status	RUO
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 α_3 domain of MHC class I and the cytoplasmic CXCP motif binds the tyrosine kinase p56 Lck.

Product Details

Verified Reactivity	Human, Cynomolgus, Rhesus
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 PE/Fire™ 744 under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration and expiration, please enter the lot number in our Certificate of Analysis online tool.)
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 µL per million cells in 100 µL staining volume or 5 µL per 100 µL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application. True-Stain Monocyte Blocker™ (Cat No. 426102) is recommended to minimize non-specific staining of PE/Fire™ 744 on monocytes and macrophages. * PE/Fire™ 744 has a maximum excitation of 565 nm and a maximum emission of 744 nm.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application Notes	Clone SK1 recognizes the a chain of CD8. Additional reported applications (for the relevant formats) include: proteogenomics[8], immunohistochemistry of acetone-fixed frozen tissue sections, and spatial biology (IBEX)[9,10]. This clone was tested in-house and does not demonstrate utility for formalin-fixed paraffin-embedded (FFPE) human tonsil sections.

Application References

(PubMed link indicates BioLegend citation)

1. Ledbetter JA, *et al.* 1981. *J. Exp. Med.* 153:310.
2. Campanelli R, *et al.* 2002. *Intl. Immunol.* 14:39.
3. Evans RL, *et al.* 1981. *Immunol.* 78:544.
4. Wooldridge L, *et al.* 2005. *J. Bio. Chem.* 280:27491.
5. Ch'el IL, *et al.* 2011. *J Exp Med.* 208:633. PubMed
6. Carbone A, *et al.* 1999. *Blood* 93:2319. (IHC-F)
7. Ahmed A, *et al.* 2001. *J. Pathol.* 193:383. (IHC)
8. Peterson VM, *et al.* 2017. *Nat. Biotechnol.* 35:936. (PG)
9. Radtke AJ, *et al.* 2020. *Proc Natl Acad Sci USA*. 117:33455-33465. (SB) PubMed
10. Radtke AJ, *et al.* 2022. *Nat Protoc.* 17:378-401. (SB) PubMed

Antigen Details

Structure	Ig superfamily, homodimer or heterodimer with CD8b, 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	NK cells, T cells, Thymocytes
Biology Area	Immunology
Molecular Family	CD Molecules
Antigen References	1. Barclay N, *et al.* 1993. *The Leucocyte Antigen FactsBook.* Academic Press Inc. San Diego.
Gene ID	925

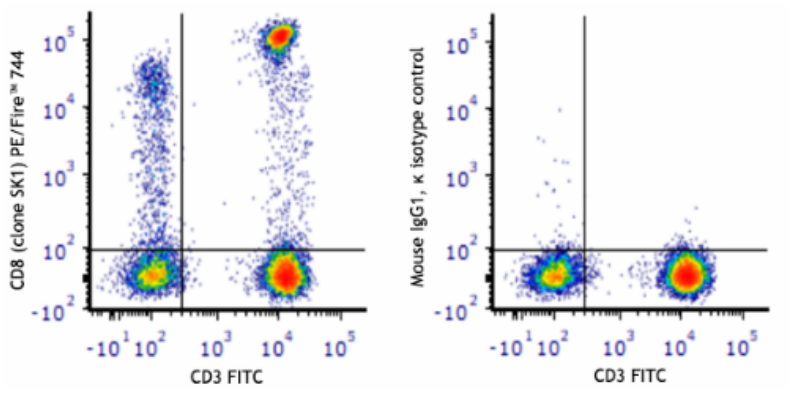
Related Protocols

- Cell Surface Flow Cytometry Staining Protocol

Other Formats

TotalSeq™-D0046 anti-human CD8, PerCP/Cyanine5.5 anti-human CD8, APC/Fire™ 750 anti-human CD8, PE/Cyanine5 anti-human CD8 Antibody, GMP PE/Cyanine7 anti-human CD8, GMP FITC anti-human CD8, Spark UV™ 387 anti-human CD8, KIRAVIA Blue 520™ anti-human CD8, GMP PerCP anti-human CD8, Spark Violet™ 500 anti-human CD8, GMP Pacific Blue™ anti-human CD8, GMP APC/Fire™ 750 anti-human CD8, GMP PerCP/Cyanine 5.5 anti-human CD8, Alexa Fluor® 660 anti-human CD8, Spark Blue™ 515 anti-human CD8, Spark Blue™ 574 anti-human CD8, GMP APC anti-human CD8, Spark Violet™ 538 anti-human CD8, Brilliant Violet 711™ anti-human CD8, Purified anti-human CD8 (Maxpar® Ready), Brilliant Violet 650™ anti-human CD8, Brilliant Violet 605™ anti-human CD8, PE/Dazzle™ 594 anti-human CD8, PE anti-human CD8, Brilliant Violet 421™ anti-human CD8, Brilliant Violet 785™ anti-human CD8, APC anti-human CD8, FITC anti-human CD8, APC/Cyanine7 anti-human CD8, Alexa Fluor® 488 anti-human CD8, Purified anti-human CD8, PerCP anti-human CD8, Pacific Blue™ anti-human CD8, Biotin anti-human CD8, PE/Cyanine7 anti-human CD8, GMP PE anti-human CD8, Spark NIR™ 685 anti-human CD8, Alexa Fluor® 700 anti-human CD8, Alexa Fluor® 647 anti-human CD8, Brilliant Violet 570™ anti-human CD8, Spark Violet™ 423 anti-human CD8 Antibody, PerCP/Fire™ 780 anti-human CD8, PE/Fire™ 810 anti-human CD8, StarBright UltraViolet 795 anti-human CD8, Spark YG™ 593 anti-human CD8, Spark PLUS V475™ anti-human CD8, Spark PLUS V450™ anti-human CD8, Brilliant Violet 510™ anti-human CD8, TotalSeq™-A0046 anti-human CD8, Spark Blue™ 550 anti-human CD8, APC/Fire™ 810 anti-human CD8, PE/Fire™ 640 anti-human CD8, PE/Fire™ 700 anti-human CD8, PerCP/Fire™ 806 anti-human CD8, PE/Fire™ 744 anti-human CD8, TotalSeq™-B0046 anti-human CD8, StarBright UltraViolet 575 anti-human CD8, Ultra-LEAF™ Purified anti-human CD8 (Flexi-Pure™), StarBright UltraViolet 605 anti-human CD8, TotalSeq™-C0046 anti-human CD8, Brilliant Violet 750™ anti-human CD8

Product Data



Human peripheral blood was stained with anti-human CD3 (clone UCHT1) FITC and anti-human CD8 (clone SK1) PE/Fire™ 744 (left), or mouse IgG1, κ PE/Fire™ 744 isotype control (right). Data shown is gated on lymphocytes.

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