

Spark PLUS V450™ anti-human CD8 Antibody

Catalog# / Size	344752 / 25 tests 344754 / 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 Spark PLUS V450™ 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 μ L per million cells in 100 μ L staining volume or 5 μ L per 100 μ L of whole blood. It is recommended that the reagent be titrated for optimal performance for each application. * Spark PLUS V450™ has a maximum excitation of 405 nm and a maximum emission of 452 nm.
Excitation Laser	Violet Laser (405 nm)
Application Notes	Clone SK1 recognizes the α 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, <i>et al.</i> 1993. <i>The Leucocyte Antigen FactsBook</i> . Academic Press Inc. San Diego.
Gene ID	925

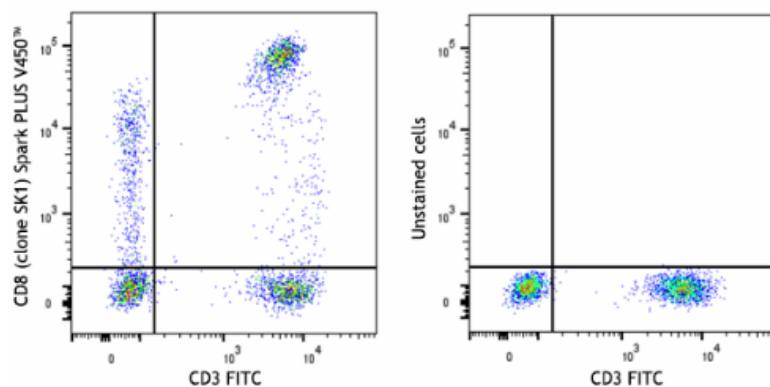
Related Protocols

- [Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

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 cells were stained with anti-human CD3 (clone UCHT1) FITC and anti-human CD8 (clone SK1) Spark PLUS V450™ (left) or stained with anti-human CD3 (clone UCHT1) FITC only (right). Data shown are gated on the lymphocyte population.

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