

## Spark UV™ 387 anti-human CD8 Antibody

<b>Catalog# / Size</b>	344775 / 25 tests 344776 / 100 tests
<b>Clone</b>	SK1
<b>Regulatory Status</b>	RUO
<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, Cynomolgus, Rhesus
<b>Reported Reactivity</b>	African Green, Chimpanzee, Pigtailed Macaque, Sooty Mangabey
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with Spark UV™ 387 under optimal conditions.
<b>Concentration</b>	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.)
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">FC - Quality tested</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 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.  * Spark UV™ 387 has a maximum excitation of 351 nm and a maximum emission of 387 nm.
<b>Excitation Laser</b>	Ultraviolet Laser (355 nm)
<b>Application Notes</b>	Clone SK1 recognizes the a chain of CD8. Additional reported applications (for the relevant formats) include: proteogenomics <sup>8</sup> , immunohistochemistry of acetone-fixed frozen tissue sections, and spatial biology (IBEX) <sup>9,10</sup> . This clone was tested in-house and does not demonstrate utility for formalin-fixed paraffin-embedded (FFPE) human tonsil sections.
<b>Application References</b>	<ol style="list-style-type: none"> <li>1. Ledbetter JA, <i>et al.</i> 1981. <i>J. Exp. Med.</i> 153:310.</li> <li>2. Campanelli R, <i>et al.</i> 2002. <i>Intl. Immunol.</i> 14:39.</li> <li>3. Evans RL, <i>et al.</i> 1981. <i>Immunol.</i> 78:544.</li> <li>4. Wooldridge L, <i>et al.</i> 2005. <i>J. Bio. Chem.</i> 280:27491.</li> <li>5. Ch'el IL, <i>et al.</i> 2011. <i>J Exp Med.</i> 208:633. <a href="#">PubMed</a></li> <li>6. Carbone A, <i>et al.</i> 1999. <i>Blood</i> 93:2319. (IHC-F)</li> <li>7. Ahmed A, <i>et al.</i> 2001. <i>J. Pathol.</i> 193:383. (IHC)</li> <li>8. Peterson VM, <i>et al.</i> 2017. <i>Nat. Biotechnol.</i> 35:936. (PG)</li> </ol>

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](#)

**RRID** AB\_2924544 (BioLegend Cat. No. 344775)  
AB\_2924544 (BioLegend Cat. No. 344776)

## Antigen Details

<b>Structure</b>	Ig superfamily, homodimer or heterodimer with CD8b, 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>	NK cells, T cells, Thymocytes
<b>Biology Area</b>	Immunology
<b>Molecular Family</b>	CD Molecules
<b>Antigen References</b>	1. Barclay N, et al. 1993. <i>The Leucocyte Antigen FactsBook</i> . Academic Press Inc. San Diego.
<b>Gene ID</b>	<a href="#">925</a>

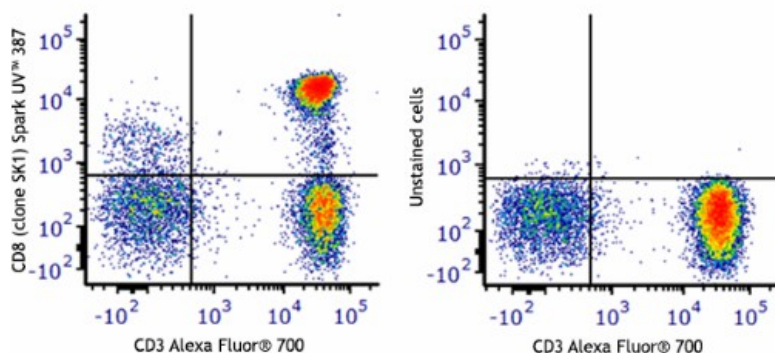
## Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

## Other Formats

Alexa Fluor® 647 anti-human CD8, Brilliant Violet 650™ anti-human CD8, Purified anti-human CD8, FITC anti-human CD8, PE anti-human CD8, PerCP anti-human CD8, PerCP/Cyanine5.5 anti-human CD8, PE/Cyanine7 anti-human CD8, APC/Cyanine7 anti-human CD8, Alexa Fluor® 488 anti-human CD8, Pacific Blue™ anti-human CD8, Biotin anti-human CD8, APC anti-human CD8, Alexa Fluor® 700 anti-human CD8, Purified anti-human CD8 (Maxpar® Ready), Brilliant Violet 510™ anti-human CD8, Brilliant Violet 711™ anti-human CD8, Brilliant Violet 785™ anti-human CD8, Brilliant Violet 605™ anti-human CD8, PE/Dazzle™ 594 anti-human CD8, APC/Fire™ 750 anti-human CD8, Brilliant Violet 421™ anti-human CD8, TotalSeq™-A0046 anti-human CD8, TotalSeq™-C0046 anti-human CD8, Brilliant Violet 750™ anti-human CD8, TotalSeq™-B0046 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, TotalSeq™-D0046 anti-human CD8, GMP APC anti-human CD8, PE/Cyanine5 anti-human CD8 Antibody, Spark UV™ 387 anti-human CD8, GMP PE anti-human CD8, GMP PE/Cyanine7 anti-human CD8, Spark NIR™ 685 anti-human CD8, KIRAVIA Blue 520™ anti-human CD8, GMP FITC anti-human CD8, GMP Pacific Blue™ anti-human CD8, GMP PerCP anti-human CD8, Spark Violet™ 500 anti-human CD8

## Product Data



Human peripheral blood lymphocytes were stained with anti-human CD3 Alexa Fluor® 700 and anti-human CD8 (clone SK1) Spark UV™ 387 (left) or stained with anti-human CD3 Alexa Fluor® 700 only (right).

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