

GMP PerCP/Cyanine 5.5 anti-human CD8 Antibody

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|------------------------|--|
| Catalog# / Size | 260230 / 100 tests |
| Clone | SK1 |
| 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

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| Reactivity | Human, Cynomolgus, Rhesus |
| Reported Reactivity | African Green, Chimpanzee, Pigtailed Macaque, Sooty Mangabey |
| Antibody Type | Monoclonal |
| Host Species | Mouse |
| Formulation | Phosphate-buffered solution, pH 7.2, containing True-Stain Monocyte Blocker™, 0.09% sodium azide and 0.2% (w/v) BSA (origin USA) and a stabilizer. |
| Preparation | The antibody was purified by affinity chromatography and conjugated with PerCP/Cyanine5.5 under optimal conditions. |
| Concentration | 50 µg/mL |
| 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. * PerCP/Cyanine5.5 has a maximum absorption of 482 nm and a maximum emission of 690 nm. |
| Excitation Laser | Blue Laser (488 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 | <ol style="list-style-type: none"> 1. Ledbetter JA, <i>et al.</i> 1981. <i>J. Exp. Med.</i> 153:310. 2. Campanelli R, <i>et al.</i> 2002. <i>Intl. Immunol.</i> 14:39. 3. Evans RL, <i>et al.</i> 1981. <i>Immunol.</i> 78:544. 4. Wooldridge L, <i>et al.</i> 2005. <i>J. Bio. Chem.</i> 280:27491. 5. Ch'el IL, <i>et al.</i> 2011. <i>J Exp Med.</i> 208:633. PubMed 6. Carbone A, <i>et al.</i> 1999. <i>Blood</i> 93:2319. (IHC-F) 7. Ahmed A, <i>et al.</i> 2001. <i>J. Pathol.</i> 193:383. (IHC) 8. Peterson VM, <i>et al.</i> 2017. <i>Nat. Biotechnol.</i> 35:936. (PG) 9. Radtke AJ, <i>et al.</i> 2020. <i>Proc Natl Acad Sci USA.</i> 117:33455-33465. (SB) PubMed 10. Radtke AJ, <i>et al.</i> 2022. <i>Nat Protoc.</i> 17:378-401. (SB) PubMed |
| (PubMed link indicates BioLegend citation) | |

Disclaimer

GMP RUO Flow Cytometry Antibodies. BioLegend GMP RUO fluorophore conjugated antibodies

are manufactured in a dedicated GMP facility and compliant with ISO 13485:2016. For research use only. Not for use in diagnostic or therapeutic procedures. Our processes include:

- Batch-to-batch consistency
- Material traceability
- Documented procedures
- Documented employee training
- Equipment maintenance and monitoring records
- Lot-specific certificates of analysis
- Quality audits per ISO 13485:2016
- QA review of released products

Antigen Details

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|---------------------------|---|
| 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 |

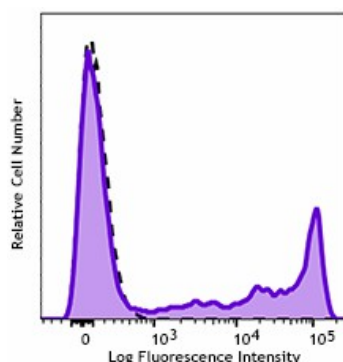
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

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, Alexa Fluor® 660 anti-human CD8a

Product Data



Typical results from human peripheral blood lymphocytes stained either with SK1 PerCP/Cyanine5.5 used at 5 µL/test (filled histogram) or with an isotype control (open histogram).

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