

GMP PE anti-human CD8 Antibody

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|------------------------|--|
| Catalog# / Size | 260094 / 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 |
| Antibody Type | Monoclonal |
| Host Species | Mouse |
| Formulation | Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA). |
| Preparation | The antibody was purified by affinity chromatography and conjugated with PE under optimal conditions. |
| Concentration | 12.5 μ g/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 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. |
| 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 | <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

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

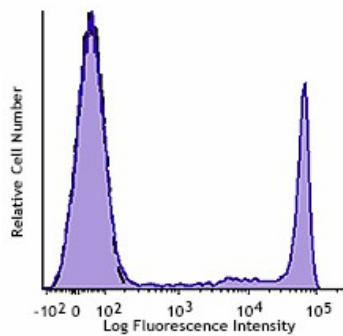
[925](#)

Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

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



Typical results from human peripheral blood lymphocytes stained either with clone SK1 PE used at 5 μ L/test (filled histogram) or with an isotype control (open histogram).

Symbols Glossary*

| Symbol | Meaning | Symbol Title | Symbol No. | Symbol | Meaning | Symbol Title | Symbol No. |
|--------|---|----------------------------|------------|--------|--|---|------------|
| | Catalog number | Catalogue number | 5.1.6 | | Indicates the need for the user to consult the instructions for use. | Consult instructions for use | 5.4.3 |
| | Indicates the temperature limits to which the medical device can be safely exposed. | Temperature limit | 5.3.7 | | Indicates a medical device that needs protection from light sources. | Keep away from sunlight | 5.3.2 |
| | Indicates the upper limit of temperature to which the medical device can be safely exposed. | Upper limit of temperature | 5.3.6 | | Indicates the date after which the medical device is not to be used. | Use-by date | 5.1.4 |
| | Indicates the medical device manufacturer. | Manufacturer | 5.1.1 | | Indicates the authorized representative in the European Community. | Authorized representative in the European Community | 5.1.2 |
| | Indicates the manufacturer's batch code so that the batch or lot can be identified. | Batch code | 5.1.5 | | Indicates a medical device that is intended to be used as an in vitro diagnostic medical device. | <i>In vitro</i> diagnostic medical device | 5.5.1 |

* Symbol information is from EN ISO 15223-1:2016 Medical devices – Symbols to be used with medical device labels, labelling and information to be supplied – Part 1: General requirements

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BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
 Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587