

Brilliant Violet 510™ anti-human CD3 Antibody

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| Catalog# / Size | 344827 / 25 tests 344828 / 100 tests |
| Clone | SK7 |
| Regulatory Status | RUO |
| Workshop | HCDM listed |
| Other Names | T3, CD3ε |
| Isotype | Mouse IgG1, κ |
| Description | CD3ε is a 20 kD chain of the CD3/T-cell receptor (TCR) complex, which is composed of two CD3ε, one CD3γ, one CD3δ, one CD3ζ (CD247), and a T-cell receptor (α/β or γ/δ) heterodimer. It is found on all mature T cells, NK T cells, and some thymocytes. CD3, also known as T3, is a member of the immunoglobulin superfamily that plays a role in antigen recognition, signal transduction, and T cell activation. |

Product Details

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| Verified Reactivity | Human |
| Reported Reactivity | Chimpanzee |
| 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 Brilliant Violet 510™ under optimal conditions. |
| Concentration | Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.) |
| 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 | <p>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.</p> <p>Brilliant Violet 510™ excites at 405 nm and emits at 510 nm. The bandpass filter 510/50 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel. Refer to your instrument manual or manufacturer for support. Brilliant Violet 510™ is a trademark of Sirigen Group Ltd.</p> <p>Learn more about Brilliant Violet™.</p> <p>This product is subject to proprietary rights of Sirigen Inc. and is made and sold under license from Sirigen Inc. The purchase of this product conveys to the buyer a non-transferable right to use the purchased product for research purposes only. This product may not be resold or incorporated in any manner into another product for resale. Any use for therapeutics or diagnostics is strictly prohibited. This product is covered by U.S. Patent(s), pending patent applications and foreign equivalents.</p> |
| Excitation Laser | Violet Laser (405 nm) |
| Application Notes | Additional reported application (for the relevant formats) include: immunohistochemical staining of frozen tissue sections ^{4,5,8} , immunofluorescent staining ⁶ , and Western blotting ³ . |

Application References

(PubMed link indicates
BioLegend citation)

1. Kan EA, *et al.* 1983. *J. Immunol.* 131:536.
2. Wood GS, *et al.* 1985. *Am. J. Pathol.* 120:371.
3. Van Dongen JIM, *et al.* 1988. *Blood* 71:603. (WB)
4. Haringman JJ, *et al.* 2005. *Arthritis Res. Ther.* 7:R862. (IHC)
5. Carbone A, *et al.* 1999. *Blood* 93:2319. (IHC)
6. Goyal JJ, *et al.* 2006. *J. Histochem. Cytochem.* 54:75. (IF)
7. Rutjens E, *et al.* 2007. *J. Immunol.* 178:1702.
8. Kap Y, *et al.* 2009. *J. Histochem. Cytochem.* 57:1159. (IHC)
9. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)

Product Citations

1. Wragg KM, *et al.* 2020. *Cell Reports.* 31(11):107773. [PubMed](#)
2. Kim CJ, *et al.* 2018. *Immunity.* 49:1034. [PubMed](#)
3. Juno JA, *et al.* 2020. *Nat Med.* 26:1428. [PubMed](#)
4. Silver J, *et al.* 2020. *Methods Mol Biol.* 2121:115. [PubMed](#)
5. Elias G, *et al.* 2022. *Elife.* 11:. [PubMed](#)
6. Koerber N, *et al.* 2022. *Nat Commun.* 13:153. [PubMed](#)
7. Lickliter JD, *et al.* 2020. *Drug Des Devel Ther.* 14:1177. [PubMed](#)
8. Liu Y, *et al.* 2019. *Nat Commun.* 10:324. [PubMed](#)
9. Reitingner C, *et al.* 2022. *Front Immunol.* 13:970290. [PubMed](#)
10. Gamradt S, *et al.* 2021. *iScience.* 24:103312. [PubMed](#)

RRID

AB_2563703 (BioLegend Cat. No. 344827)
AB_2563704 (BioLegend Cat. No. 344828)

Antigen Details

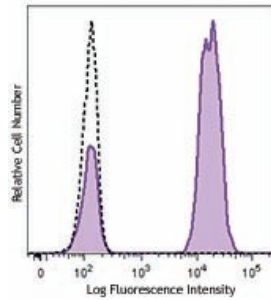
| | |
|---------------------------|--|
| Structure | Ig superfamily, with the subunits of CD3 γ , CD3 δ , CD3 ζ , (CD247) and TCR (α/β or γ/δ) forms CD3/TCR complex, 20 kD |
| Distribution | Mature T and NK T cells, during thymocyte differentiation |
| Function | Antigen recognition, signal transduction, T cell activation |
| Ligand/Receptor | Peptide antigen bound to MHC |
| Cell Type | NKT cells, T cells, Tregs |
| Biology Area | Immunology, Innate Immunity |
| Molecular Family | CD Molecules, TCRs |
| Antigen References | <ol style="list-style-type: none">1. Barclay N, <i>et al.</i> 1993. <i>The Leucocyte FactsBook.</i> Academic Press. San Diego.2. Beverly P, <i>et al.</i> 1981. <i>Eur. J. Immunol.</i> 11:329.3. Lanier L, <i>et al.</i> 1986. <i>J. Immunol.</i> 137:2501. |
| Gene ID | 916 |

Other Formats

APC/Fire™ 750 anti-human CD3, Biotin anti-human CD3, Purified anti-human CD3, FITC anti-human CD3, PE anti-human CD3, Alexa Fluor® 488 anti-human CD3, APC anti-human CD3, PerCP/Cyanine5.5 anti-human CD3, PerCP anti-human CD3, PE/Cyanine7 anti-human CD3, APC/Cyanine7 anti-human CD3, Alexa Fluor® 700 anti-human CD3, Pacific Blue™ anti-human CD3, Alexa Fluor® 647 anti-human CD3, Brilliant Violet 510™ anti-human CD3, Brilliant Violet 421™ anti-human CD3, Brilliant Violet 605™ anti-human CD3, Brilliant Violet 711™ anti-human CD3, Brilliant Violet 785™ anti-human CD3, PE/Dazzle™ 594 anti-human CD3, Brilliant Violet 750™ anti-human CD3, TotalSeq™-A0049 anti-human CD3, TotalSeq™-C0049 anti-human CD3, Spark Blue™ 550 anti-human CD3, TotalSeq™-B0049 anti-human CD3, Alexa Fluor® 660 anti-human CD3, APC/Fire™ 810 anti-human CD3, Spark NIR™ 685 anti-human CD3, PE/Fire™ 640 anti-human CD3, PE/Fire™ 700 anti-human CD3, GMP FITC anti-human CD3, PE/Cyanine5 anti-human CD3 Antibody, GMP PE anti-human CD3, GMP APC anti-human CD3, GMP PerCP/Cyanine5.5 anti-human CD3, Spark YG™ 593 anti-human CD3, GMP PerCP anti-human CD3, Spark Violet™ 500 anti-human CD3

Product Data

Human peripheral blood lymphocytes were stained with SK7 Brilliant Violet 510™.



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