

Spark PLUS V450™ anti-human CD3 Antibody

Catalog# / Size	344877 / 25 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

Verified Reactivity	Human
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 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 PLUS V450™ has a maximum excitation of 405 nm and a maximum emission of 452 nm.
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	1. Kan EA, <i>et al.</i> 1983. <i>J. Immunol.</i> 131:536. 2. Wood GS, <i>et al.</i> 1985. <i>Am. J. Pathol.</i> 120:371. 3. Van Dongen JJM, <i>et al.</i> 1988. <i>Blood</i> 71:603. (WB) 4. Haringman JJ, <i>et al.</i> 2005. <i>Arthritis Res. Ther.</i> 7:R862. (IHC) 5. Carbone A, <i>et al.</i> 1999. <i>Blood</i> 93:2319. (IHC) 6. Goval JJ, <i>et al.</i> 2006. <i>J. Histochem. Cytochem.</i> 54:75. (IF) 7. Rutjens E, <i>et al.</i> 2007. <i>J. Immunol.</i> 178:1702. 8. Kap Y, <i>et al.</i> 2009. <i>J. Histochem. Cytochem.</i> 57:1159. (IHC) 9. Yoshino N, <i>et al.</i> 2000. <i>Exp. Anim. (Tokyo)</i> 49:97. (FC)
(PubMed link indicates BioLegend citation)	

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	1. Barclay N, <i>et al.</i> 1993. The Leucocyte FactsBook. 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

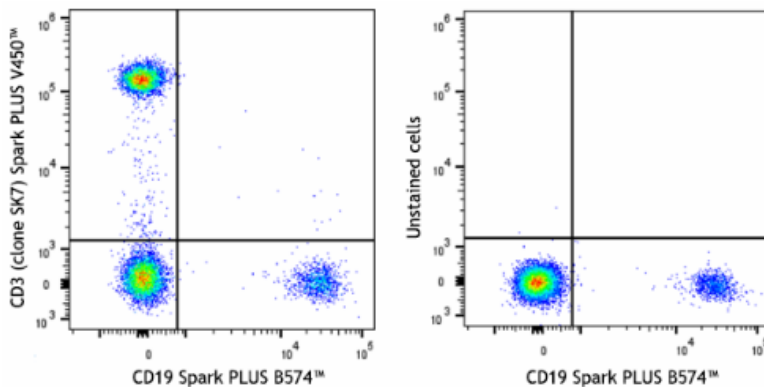
Related Protocols

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

Other Formats

GMP PE anti-human CD3, GMP PerCP anti-human CD3, GMP APC anti-human CD3, Spark YG™ 593 anti-human CD3, APC/Fire™ 750 anti-human CD3, GMP FITC anti-human CD3, Spark Violet™ 500 anti-human CD3, PE/Cyanine5 anti-human CD3 Antibody, Brilliant Violet 421™ anti-human CD3, Brilliant Violet 605™ anti-human CD3, Brilliant Violet 711™ anti-human CD3, FITC anti-human CD3, PE anti-human CD3, Brilliant Violet 785™ anti-human CD3, PE/Dazzle™ 594 anti-human CD3, Purified anti-human CD3, APC/Cyanine7 anti-human CD3, PerCP/Cyanine5.5 anti-human CD3, PerCP anti-human CD3, PE/Cyanine7 anti-human CD3, Biotin anti-human CD3, GMP PerCP/Cyanine5.5 anti-human CD3, Alexa Fluor® 647 anti-human CD3, Pacific Blue™ anti-human CD3, Brilliant Violet 650™ anti-human CD3, Spark YG™ 581 anti-human CD3 (Flexi-Fluor™), Spark PLUS UV395™ anti-human CD3, TotalSeq™-A0049 anti-human CD3, TotalSeq™-C0049 anti-human CD3, Alexa Fluor® 660 anti-human CD3, PE/Fire™ 640 anti-human CD3, APC anti-human CD3, Alexa Fluor® 700 anti-human CD3, Brilliant Violet 510™ anti-human CD3, Spark Blue™ 550 anti-human CD3, APC/Fire™ 810 anti-human CD3, PE/Fire™ 700 anti-human CD3, Alexa Fluor® 488 anti-human CD3, PE/Fire™ 744 anti-human CD3, Spark PLUS V450™ anti-human CD3, Brilliant Violet 750™ anti-human CD3, TotalSeq™-B0049 anti-human CD3, Spark NIR™ 685 anti-human CD3

Product Data



Human peripheral blood cells were stained with anti-human CD19 (clone HIB19) Spark PLUS B574™ and anti-human CD3 (clone SK7) Spark PLUS V450™ (left) or stained with anti-human CD19 (clone HIB19) Spark PLUS B574™ only (right). Data shown are gated on the lymphocyte population.

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