

## Brilliant Violet 650™ anti-human CD3 Antibody

<b>Catalog# / Size</b>	317323 / 25 tests 317324 / 100 tests
<b>Clone</b>	OKT3
<b>Regulatory Status</b>	RUO
<b>Workshop</b>	HCDM listed
<b>Other Names</b>	T3, CD3ε
<b>Isotype</b>	Mouse IgG2a, κ
<b>Description</b>	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 lymphocytes, 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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<b>Verified Reactivity</b>	Human
<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 Brilliant Violet 650™ 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>	<p>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.</p> <p>Brilliant Violet 650™ excites at 405 nm and emits at 645 nm. The bandpass filter 660/20 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. <b>Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel.</b> Refer to your instrument manual or manufacturer for support. Brilliant Violet 650™ is a trademark of Sirigen Group Ltd.</p> <p><a href="#">Learn more about Brilliant Violet™.</a></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>
<b>Excitation Laser</b>	Violet Laser (405 nm)
<b>Application Notes</b>	<p>The OKT3 monoclonal antibody reacts with an epitope on the epsilon-subunit within the human CD3 complex.</p> <p>Clone OKT3 can block the binding of clones SK7 and UCHT1.<sup>4</sup> The OKT3 antibody is able to induce T cell activation. Additional reported applications (for the relevant formats) include:</p>

immunohistochemical staining of acetone-fixed frozen sections and activation of T cells. The LEAF™ purified antibody (Endotoxin <0.1 EU/μg, Azide-Free, 0.2 μm filtered) is recommended for functional assays (Cat. No. 317304). For highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Cat. No. 317326) with a lower endotoxin limit than standard LEAF™ purified antibodies (Endotoxin <0.01 EU/μg).

## Application References

(PubMed link indicates BioLegend citation)

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## RRID

AB\_11126748 (BioLegend Cat. No. 317323)  
AB\_2563352 (BioLegend Cat. No. 317324)

## Antigen Details

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<b>Structure</b>	Ig superfamily, the subunits CD3γ, CD3δ, CD3ζ (CD247) and TCR (α/β or γ/δ) form the CD3/TCR complex, 20 kD
<b>Distribution</b>	Mature T and NK T cells, thymocyte differentiation
<b>Function</b>	Antigen recognition, signal transduction, T cell activation
<b>Ligand/Receptor</b>	Peptide antigen bound to MHC
<b>Cell Type</b>	NKT cells, T cells, Thymocytes, Tregs
<b>Biology Area</b>	Immunology
<b>Molecular Family</b>	CD Molecules
<b>Antigen References</b>	

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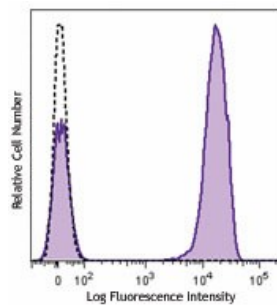
## Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

## Other Formats

Purified anti-human CD3, FITC anti-human CD3, PE anti-human CD3, Alexa Fluor® 488 anti-human CD3, Alexa Fluor® 647 anti-human CD3, Pacific Blue™ anti-human CD3, APC anti-human CD3, Biotin anti-human CD3, Brilliant Violet 605™ anti-human CD3, Brilliant Violet 650™ anti-human CD3, Ultra-LEAF™ Purified anti-human CD3, Brilliant Violet 711™ anti-human CD3, Brilliant Violet 785™ anti-human CD3, Brilliant Violet 510™ anti-human CD3, PE/Cyanine7 anti-human CD3, PerCP/Cyanine5.5 anti-human CD3, PerCP anti-human CD3, Alexa Fluor® 700 anti-human CD3, APC/Cyanine7 anti-human CD3, Brilliant Violet 421™ anti-human CD3, PE/Dazzle™ 594 anti-human CD3, APC/Fire™ 750 anti-human CD3, GMP Ultra-LEAF™ Purified anti-human CD3 SF, PE/Cyanine5 anti-human CD3 Antibody

## Product Data



Human peripheral lymphocytes were stained with CD3 (clone OKT3) Brilliant Violet 650™.

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