

Cell-Vive™ GMP Ultra-LEAF™ Purified anti-HU CD3 RecAb SF

Catalog# / Size	317367 / 100 µg 317368 / 1 mg
Clone	OKT3.Rec
Other Names	T3, CD3ε
Isotype	Mouse IgG2a, 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 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.

Quality Statement	<p>BioLegend Cell-Vive™ GMP Ultra-LEAF™ antibodies are manufactured and tested in accordance with USP Chapter 1043, Ancillary Materials for Cell, Gene and Tissue-Engineered Products and Ph. Eur. Chapter 5.2.12 in a dedicated GMP facility compliant with ISO 13485:2016. Specifications and processes include</p> <ul style="list-style-type: none"> • Ultra-Low endotoxin level (<0.01 EU/µg) • Manufactured under serum-free conditions • Bulks tested negative for mycoplasma and bacterial/fungal growth • Serum-free hybridomas are negative for the presence of murine virus • Batch-to-batch consistency • Vendor qualification • Raw material traceability and documentation • Documented procedures and employee training • Equipment maintenance and monitoring records • Lot-specific certificates of analysis • QA review of released products • Quality audits per ISO 13485:2016
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Product Details

Reactivity	Human
Antibody Type	Recombinant
Host Species	Mouse
Formulation	0.1 µm filtered in phosphate-buffered solution, pH 7.2, containing no preservative. Endotoxin level is < 0.01 EU/µg of the protein (< 0.001 ng/µg of the protein) as determined by the LAL test.
Endotoxin Level	Less than 0.01 EU/µg of the protein (< 0.001 ng/µg of the protein) as determined by the LAL test
Preparation	GMP Ultra-LEAF™ (Low Endotoxin, Azide-Free) Recombinant Serum Free antibody purified by affinity chromatography
Concentration	1.0 mg/mL
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C. This Ultra-LEAF™ solution contains no preservative; handle under aseptic conditions.
Application	<p>FC - Quality tested Activ - Verified in house Costim - Reported in the literature</p>
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 ≤ 0.25 µg per million cells in 100 µL volume. It is recommended that the reagent be titrated for optimal performance for each application.</p> <p>OKT3.Rec antibody can be used at 1 µg/mL of antibody in PBS alone or in combination with 1 µg/mL of anti-human CD28 antibody for T cell activation.</p>

Application Notes The OKT3.Rec recombinant antibody reacts with an epitope on the epsilon-subunit within the human CD3 complex.

Clone OKT3.Rec can block the binding of clones SK7 and UCHT1. The OKT3.Rec antibody is able to induce T cell activation.

This GMP Ultra-LEAF™ Purified antibody (Endotoxin < 0.01 EU/μg, Azide-Free, 0.1 μm filtered) is recommended for highly sensitive assays.

Disclaimer BioLegend Cell-Vive™ GMP Ultra-LEAF™ antibodies are for research use only. Suitable for *ex vivo* cell processing. Not for injection or diagnostic or therapeutic use. Not for resale. BioLegend will not be held responsible for patent infringement or other violations that may occur with the use of our products.

Antigen Details

Structure Ig superfamily, the subunits CD3γ, CD3δ, CD3ζ (CD247) and TCR (α/β or γ/δ) form the CD3/TCR complex, 20 kD

Distribution Mature T and NK T cells, thymocyte differentiation

Function Antigen recognition, signal transduction, T cell activation

Ligand/Receptor Peptide antigen bound to MHC

Antigen References

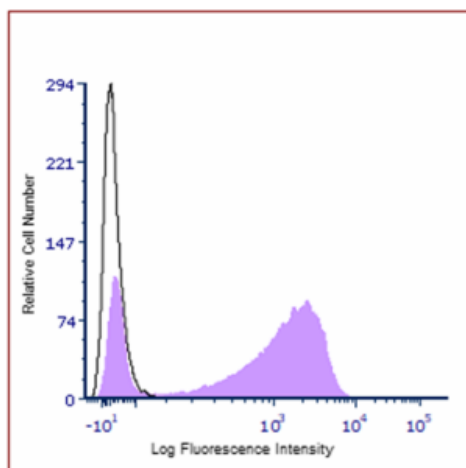
1. Barclay N, *et al.* 1993. The Leucocyte FactsBook. Academic Press. San Diego.
2. Beverly P, *et al.* 1981. *Eur J Immunol.* 11:329.
3. Lanier L, *et al.* 1986. *J Immunol.* 137:2501.

Gene ID [916](#)

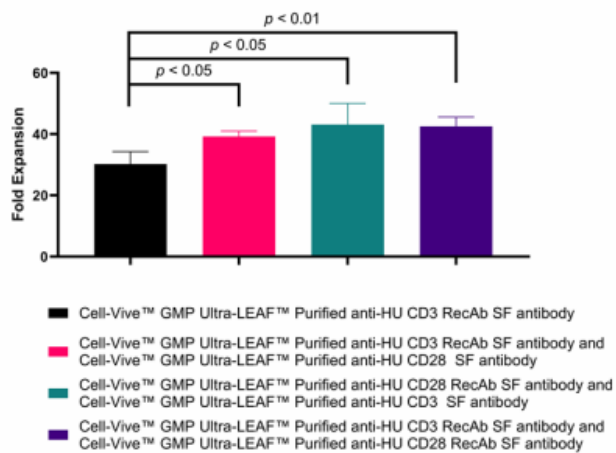
Related Protocols

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

Product Data



Human peripheral blood lymphocytes were stained with Cell-Vive™ GMP Ultra-LEAF™ Purified anti-human CD3 RecAb SF at 0.25 μg per test (Clone OKT3.Rec, cat#: 317368, filled histogram) or an isotype control (Clone MOPC-173, cat#: 400201, open histogram). Both primary stains were followed by an anti-mouse IgG FITC secondary stain (Clone Poly4060, cat#: 406001).



PBMC-derived T cells were activated in the presence of Cell-Vive™ GMP Ultra-LEAF™ Purified anti-human CD3 RecAb SF antibody (clone OKT3.Rec, cat#: 317368, black bar) alone or combined with Cell-Vive™ GMP Ultra-LEAF™ Purified anti-human CD28 RecAb SF antibody (clone S20013F.Rec, cat#: 377614, purple bar). These conditions were compared to both: OKT3.Rec combined with GMP Ultra-LEAF Purified anti-human CD28 SF antibody (clone S20013F, cat#: 377605, pink bar) and S20013F.Rec combined with GMP Ultra-LEAF Purified anti-human CD3 SF Antibody (clone: OKT3, cat#: 317353, teal bar). T cells were activated by plating 1×10^6 cells on a 12-well plate coated with $1 \mu\text{g}/\text{mL}$ of each antibody in PBS. Cells were cultured for a total of 10 days and fold expansion compared to D0 was calculated at D10. Statistical significance was observed for each antibody pair compared to Cell-Vive™ GMP Ultra-LEAF™ Purified anti-human CD3 RecAb SF antibody alone. Unpaired t-tests confirmed no significant difference in fold expansion between antibody pairs.

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