

FITC anti-CD247 (TCR ζ , CD3 ζ) Antibody

Catalog# / Size	644103 / 25 μ g 644104 / 100 μ g
Clone	6B10.2
Regulatory Status	RUO
Other Names	CD247, CD3zeta
Isotype	Mouse IgG1, κ
Description	The invariant TCR zeta chain is a member of the CD3 complex associated with the clonotypic alpha/beta TCR heterodimer. The disulfide-linked TCR zeta homodimers transmit signals following TCR ligation. Loss of TCR zeta expression has been reported in a diverse range of disease states, including autoimmune diseases, many neoplastic conditions and chronic infections, such as tuberculosis and leprosy.

Product Details

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Human TCR zeta chain aa38-54
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography, and conjugated with FITC under optimal conditions.
Concentration	0.5 mg/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	ICFC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by intracellular immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is $\leq 0.5 \mu$ g per 10^6 cells in 100 μ l volume. It is recommended that the reagent be titrated for optimal performance for each application.
Excitation Laser	Blue Laser (488 nm)
Application References	<ol style="list-style-type: none">1. Zhang Z, <i>et al.</i> 2007. <i>Blood</i> 109:4328. (Block)2. Gorman CL, <i>et al.</i> 2008. <i>J. Immunol.</i> 180:1060.3. Jenson WA, <i>et al.</i> 1997. <i>Eur J. Immunol.</i> 27:707.4. Mao H, <i>et al.</i> 2010. <i>J. Virol.</i> 84:4148. PubMed5. Hwang I, <i>et al.</i> 2012. <i>Int Immunol.</i> 24:793. PubMed.
Product Citations	<ol style="list-style-type: none">1. Memmer S, <i>et al.</i> 2016. <i>J Biol Chem.</i> 291(49):25427-25438. PubMed2. Dai HS <i>et al.</i> 2017. <i>Immunity.</i> 47(1):159-170 . PubMed3. Sade-Feldman M, <i>et al.</i> 2016. <i>Clin Cancer Res.</i> 22(23):5661-5672. PubMed4. Zarobkiewicz M, <i>et al.</i> 2020. <i>Cancers (Basel).</i> 12:00. PubMed
RRID	AB_2244275 (BioLegend Cat. No. 644103) AB_2072959 (BioLegend Cat. No. 644104)
Disclaimer	This product is for in vitro research use only. It is not to be used for commercial purposes. Use of this product to produce products for sale or for diagnostic therapeutic or drug discovery purposes is prohibited. In order to obtain a license to use this product for commercial purposes contact The Regents of the University of California.

Antigen Details

Structure	Structure: 163 amino acid long protein (predicted MW is 18kDa), with a short extracellular domain of only nine amino acids conserved between mouse and human. There are 6-7 intracellular tyrosines that are potential phosphorylation sites.
Distribution	T cells and NKT cells. Reported also positive on CD16 ⁺ human NK cells.
Function	Mediating signal transduction after TCR receptor engagement.
Interaction	ZAP70, TCR alpha/beta
Cell Type	NKT cells, T cells
Biology Area	Cell Biology, Immunology, Signal Transduction
Molecular Family	CD Molecules, TCRs
Antigen References	1.Weissman A, <i>et al.</i> 1988. P. Natl. Acad. Sci. USA 85:9709
Gene ID	919

Related Protocols

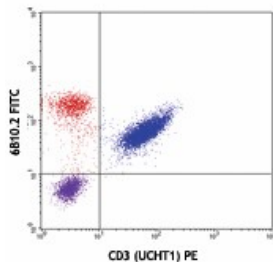
[Surface and Intracellular Cytokine Staining for Flow Cytometry - Video](#)

[Intracellular Flow Cytometry Staining Protocol](#)

Other Formats

Purified anti-CD247 (TCR ζ , CD3 ζ), FITC anti-CD247 (TCR ζ , CD3 ζ), PE anti-CD247 (TCR ζ , CD3 ζ)

Product Data



Human peripheral blood lymphocytes surface stained with CD3 (UCHT1) PE then intracellularly stained with 6B10.2 FITC

For research use only. Not for diagnostic 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.

*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, www.biolegend.com/ordering#license). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

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