Anti-Human TCR Cβ 1 (JOVI-1)

	REF	Σ		[A]	
PURE	JOVIPU	1 mg	10 µL/test	1 mg/ml	
FITC	JOVIF	100 test	20 µL/test	0,05 mg/ml	
Dy-634	JOVIDY634	100 test	5 µL/test	0,2 mg/ml	RUO
PE-Cyanine7	JOVIPC7	50 test	5 µL/test	0,2 mg/ml	
PE	JOVIPE	100 test	20 µL/test	0,05 mg/ml	

1. PRODUCT DESCRIPTION

Clone: JOVI-1;
Isotype: Mouse IgG2a, kappa;
Tested application: flow cytometry;
Immunogen: The anti-Human TCR Cβ derives from HA1.7 TCR β chain expressed on transgenic mouse cells;
Species reactivity: Human;
Storage instruction: store in the dark at 2-8 °C;
Storage buffer: aqueous buffered solution containing protein stabilizer and 0.09% sodium azide (NaN_3);
Recommended usage: Immunostep's TCR Cβ , clone JOVI-1 is a monoclonal antibody used in flow cytometry. This reagent is effective for direct immunofluorescence staining of human tissue for flow cytometric analysis using 1 test for 10^6 cells;
Presentation: liquid;
Source: Supernatant proceeding from an in vitro cell culture of a cell hybridoma;
Purification: Affinity chromatography;
Other names: T Cell Receptor beta; TCRB; TRB; TRB@; TCR VB3-CB1;
Gene ID: 28639.
Molecular weight: 34 kDa.

2. ANTIGEN DETAILS

Large description: The JOVI.1 monoclonal antibody recognizes an epitope common to a large proportion of human CD4+ or CD8+ T lymphocytes that express the T cell receptor beta chain (TCRβ).

Antibody JOVI-1 recognizes human Cβ1 TCR gene product and reacts with 50-75% of T cells in normal human blood. Antibody JOVI-1 is mitogenic for T cells expressing TCR Cβ1.[1-4]

3. WARRANTY

Warranted only to conform to the quantity and contents stated on the label or in the product labelling at the time of delivery to the customer. Immunostep disclaims hereby other warranties.

Immunostep's sole liability is limited to either the replacement of the products or refund of the purchase price.

4. ADDITIONAL INFORMATION

For research use only. Not for diagnostic use.

Unless otherwise indicated by Immunostep by written authorization, this product is intended for research only and is not to be used for any other purpose, including without limitation, for human or animal diagnostic, therapeutic or commercial purposes.

Please, refer to www.immunostep.com technical support for more information.

Direct Immunofluorescence Cell Surface Staining Protocol

1. Transfer 100 ul (106 cells/test) of the sample to a 12 x 75 mm polystyrene test tube.
2. Add the suggested volume indicated on the antibody vial to the 12x75 mm cytometer tube.
3. Mix well and incubate in the dark at room temperature at 4 °C for 30 minutes or at room temperature (20-25 °C) for 15 minutes.
4. After the incubation period, add 1,5 ml of an erythrocyte-lysing solution and mix. Incubate at room temperature in the darkness (the blood should be well mixed with the lysing solution).
5. Centrifuge tubes at 540xg for 5 minutes. The supernatant is removed with a Pasteur pipette or with a vacuum pump.
6. Resuspend and wash with 3-5 mL of PBS at 540xg for 5 min.
7. After removing the supernatant and resuspending the cell pellet, add 300 µL of PBS and adquire on the flow cytometer are recorded.
8. Analyse on a flow cytometer or store at 2- 8 °C in the dark until analysis. Samples can be run up to 24 hours after lysis.

Indirect Immunofluorescence Cell Surface Staining Protocol

1. Transfer 100 ul (106 cells/test) of the sample to a 12 x 75 mm polystyrene test tube
2. Add purified reagent according to manufacturer's recommendation and mix gently with a vortex mixer.
3. Incubate in the dark at room temperature at 4 °C for 30 minutes or at room temperature (20-25 °C) for 15 minutes.
4. Add 2 mL 0.01 mol/L PBS (It betters that it containing 2% bovine serum albumin) and resuspend the cells by using a vortex mixer. Centrifuge at 540xg for 5 min in order to remove the McAb not bound to its antigen.
5. Add a secondary conjugated reagent with some fluorochrome and mix. Incubate at room temperature for 15 min in the dark. The absence of light is necessary as the fluorochrome is photoinstability.
6. After the incubation period, add 1,5 ml of an erythrocyte-lysing solution and mix. Incubate at room temperature in the darkness (the blood should be well mixed with the lysing solution). Centrifuge at 540xg for 5 minutes. The supernatant is removed with a Pasteur pipette or with a vacuum pump.
7. Resuspend and a made a final wash with 3-5 mL of PBS at 540xg for 5 min.
8. After removing the supernatant and resuspending the cell pellet, add 300 µL of PBS and adquire on the flow cytometer are recorded.
9. Analyse on a flow cytometer or store at 2- 8 °C in the dark until analysis. Samples can be run up to 24 hours after lysis.

6. REFERENCES

1. Viney JL, Prosser HM, Hewitt CR, Lamb JR, Owen MJ. Generation of monoclonal antibodies against a human T cell receptor beta chain expressed in transgenic mice. Hybridoma. 1992 Dec;11(6):701-13. doi: 10.1089/hyb.1992.11.701. PMID: 1284120.
2. Gil D, Schamel WWA, Montoya M, Sanchez-Madrid F, and Alarcon B. Recruitment of Nck by CD3-epsilon reveals a ligand-induced conformational change essential for T cell receptor signaling and synapse formation. Cell. 2002; 109(7):901-912.
3. Okada, C.Y., et al. 1990. Characterization of a rat monoclonal antibody specific for a determinant encoded by the V β 7 gene segment. Depletion of V β 7+ T cells in mice with Mls-1a haplotype. J. Immunol. 144: 3473-3477.
4. Amsen, D. and Kruisbeek, A.M. 1999. Thymocyte selection: not by TCR alone. Immunol. Rev. 165: 209-229.
5. Noemí Muñoz-García et al. Anti-TRBC1 Antibody-Based Flow Cytometric Detection of T-Cell Clonality: Standardization of Sample Preparation and Diagnostic Implementation. Cancers. 2021, 13(17), 4379.

7. EXPLANATION OF SYMBOLS

	Form
REF	Catalog reference
Σ	Contains sufficient for > test
	Quantity per test
	Regulatory Status
RUO	Research Use Only
[A]	Concentration
	Manufacturer

8. MANUFACTURED BY:

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