A N T I B O D I E S

CLO75F
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# Monoclonal Antibody to T Cell Receptor (TCR) alpha/beta - FITC

Alternate names: TCRA, TCRB, T-Cell Receptor alpha, T-Cell Receptor beta, T-Cell Receptor alpha beta

Catalog No.: CL075F

Quantity: 0.1 mg

Concentration: 0.1 mg/ml

Host / Isotype: Hamster / IgG

Clone: H57-597

Immunogen: Affinity-purified DO-11.10 TCR

Donor: Armenian Hamster

Fusion Partner: Mouse myeloma variant P3X63 Ag.653

Format: State: Liquid purified

Purification: Protein G Chromatography

Buffer System: PBS, 0.02% NaN3 and EIA grade BSA as a stabilizing protein to bring total

protein concentration to 4-5 mg/ml.

Label: FITC

**Applications:** Flow Cytometry.

Immunohistochemistry on frozen sections.

Other applications not tested. Optimal dilutions are dependent on conditions and should

be determined by the user.

**Specificity:** This anti-mouse ab T cell receptor monoclonal antibody reacts with the surface of all ab

TCR bearing cells and does not react with receptors on gd TCR positive T cells. This monoclonal antibody when used in an immobilized form was able to activate all ab TCR bearing T cell hybridomas tested to produce IL-2. Use of this antibody in conjunction with an anti-CD3e monoclonal antibody allows for accurate measurements of the mutually

exclusive sub-populations of ab TCR and gd TCR bearing T cells.

**Species:** Mouse. Others not tested.

Storage: Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.

Avoid repeated freezing and thawing.

This product is photosensitive and should protected from light.

Shelf life: one year from despatch.

General References: 1. Kubo, R.T. Born, W., Kappler, J.W., Marrack, P. and M. Pigeon. 1989. Characterization of a

Monoclonal Antibody Which Detects All Murine ab T Cell Receptors. J. of Immunol.

142:2736-2742.

2. Goodman, T., Lefrancois, L. 1989. Intraepithelial Lymphocytes. J. of Exp. Med. 170:

For research and in vitro use only. Not for diagnostic or therapeutic work.

Material Safety Datasheets are available at www.acris-antibodies.com or on request.



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- 3. Gross, J.A., E. Callas and J.P. Allison. 1992. Identification and Distribution of the Costimulatory Receptor CD28 in the Mouse. J. of Immunol. 149: 380-388.
- 4. Palathumpat, V. et al. 1992. Treatment of BCL1 Leukemia by Transplantation of Low Density Fractions of Allogeneic Bone Marrow and Spleen Cells. J. of Immunol. 148: 3319-3326.
- 5. Paliwal, V. et al. 1997. Recombinant Soluble ab TCR Receptors Protect T Cells from Immune Suppression. J. of Immunol. 159: 1718-1727.
- 6. Skarstein, K. et al. 1994. Oligoclonality of T cells in salivary glands of autoimmune MRL/lpr mice. Immunology. 81:497-501.

#### **Protocols:**

### **FLOW CYTOMETRY ANALYSIS:**

#### Method:

- 1. Prepare a cell suspension in media A. For cell preparations, deplete the red blood cell population with Lympholyte®-M cell separation medium.
- 2. Wash 2 times.
- 3. Resuspend the cells to a concentration of 2x10e7 cells/ml in media A. Add 50  $\mu$ l of this suspension to each tube (each tube will then contain 1 x 10e6 cells, representing 1 test).
- 4. To each tube, add  $0.2 0.1 \,\mu\text{g}^*$  of this Ab per 10e6 cells.
- 5. Vortex the tubes to ensure thorough mixing of antibody and cells.
- 6. Incubate the tubes for 30 minutes at 4°C. (It is recommended that the tubes are protected from light, since most fluorochromes are light sensitive.)
- 7. Wash 2 times at 4°C.
- 8. Resuspend the cell pellet in 50 µl ice cold media B.
- 9. Transfer to suitable tubes for flow cytometric analysis containing 15  $\mu$ l of propidium iodide at 0.5 mg/ml in PBS. This stains dead cells by intercalating in DNA.

## Media:

A. Phosphate buffered saline (pH 7.2) + 5% normal serum of host species + sodium azide (100  $\mu$ l of 2M sodium azide in 100 mls).

B. Phosphate buffered saline (pH 7.2) + 0.5% Bovine serum albumin + sodium azide (100  $\mu$ l of 2M sodium azide in 100 mls).

# Results - Tissue Distribution by Flow Cytometry Analysis:

Mouse Strain: BALB/c

Cell Concentration: 1x10e6 cells per test

Antibody Concentration Used: 0.2 µg/10e6 cells

Isotypic Control: FITC Hamster IgG



**Pictures:** 

A/ B/



