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## Purified Anti-Mouse GITR Monoclonal Antibody

CL8977AP  
LOT: 7721

### DESCRIPTION:

Cedarlane's GITR antibody (clone YGITR 765.4.16) detects mouse GITR (also called TNFRSF18), a 228 aa cysteine-rich protein with a molecular weight of approximately 25 kDa. GITR is a type I transmembrane protein belonging to the tumor necrosis factor/nerve growth factor receptor (TNF/NGFR) family. The mouse GITR gene was localized to murine chromosome 4 (E region) where other TNF/NGFR members localize, including mouse 4-1BB and OX40.

Mouse GITR is expressed at low levels on unstimulated T cells, B cells and macrophages, and increases upon stimulation. GITR promotes the activation, survival and cytokine production of T cells, and can induce the activation of NF- $\kappa$ B and three subfamilies of MAP kinases; ERKs, JNK's and p38.

This antibody is suitable for use in flow cytometry and immunohistochemistry with frozen sections. This clone has been reported to work in functional assays in vitro.

### PRESENTATION:

250  $\mu$ g purified Ig buffered in PBS and 0.02% sodium azide (NaN<sub>3</sub>).

### STORAGE/STABILITY:

Store at 4°C. For long term storage, aliquot and freeze unused portion at -20°C in volumes appropriate for single usage. Avoid freeze/thaw cycles.

### SPECIFICATIONS:

Clone: YGITR 765.4.16

#### Hybridoma Production:

Immunization: Immunogen: Mouse GITR transfectant  
Donor: DA rat spleen

Fusion Partner: Y3/Ag 1.2.3

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For more information or to place an order please contact...

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website: [www.cedarlanelabs.com](http://www.cedarlanelabs.com) • e-mail: [info@cedarlanelabs.com](mailto:info@cedarlanelabs.com)

Specificity: Mouse GITR

Ig Class: Rat IgG<sub>2b</sub>

Format: Purified IgG buffered in PBS and 0.02% NaN<sub>3</sub>. (Purified from ascites fluid via Protein G chromatography).

Antibody Concentration: 1.0 mg/ml

**FLOW CYTOMETRY ANALYSIS:**

Method:

1. Prepare a cell suspension in media A. For cell preparations, deplete the red blood cell population with Lympholyte<sup>®</sup>-M cell separation medium (CL5030).
2. Wash 2 times.
3. Resuspend the cells to a concentration of  $2 \times 10^7$  cells/ml in media A. Add 50  $\mu$ l of this suspension to each tube (each tube will then contain  $1 \times 10^6$  cells, representing 1 test).
4. To each tube, add 0.1  $\mu$ g\* of **CL8977AP**.
5. Vortex the tubes to ensure thorough mixing of antibody and cells.
6. Incubate the tubes for 30 minutes at 4°C.
7. Wash 2 times at 4°C.
8. Add 100  $\mu$ l of secondary antibody **CLCC40004** (PE Goat anti-rat IgG (H+L)) at 1:500 dilution.
9. Incubate the tubes at 4°C for 30-60 minutes.  
(It is recommended that the tubes are protected from light since most fluorochromes are light sensitive).
10. Wash 2 times at 4°C in media B.
11. Resuspend the cell pellet in 50  $\mu$ l ice cold media B.
12. 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: C57/BL6

Cell Concentration:  $1 \times 10^6$  cells per test

Antibody Concentration Used: 0.1  $\mu$ g/ $10^6$  cells

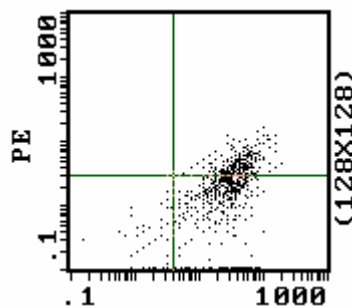
Isotypic Control: Purified Rat IgG<sub>2b</sub>(CLCR2B00)

Cell Source

Percentage of cells stained above control:

Con A activated Splenic T cells

31.5%



CL 8977AP + CL8925F(CD 25)

**N.B. Appropriate control samples should always be included in any labelling studies.**

**\* For optimal results in various applications, it is recommended that each investigator determine dilutions appropriate for individual use.**

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## **REFERENCES:**

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