

Anti-Mouse CD357 (AITR / GITR) FITC

Catalogue Number : 39612-50

RUO: For Research Use Only. Not for use in diagnostic procedures.

Product Information

Clone: DTA-1

Format/Conjugate: FITC

Concentration: 0.5 mg/mL

Reactivity: Mouse

Laser: Blue (488nm)

Peak Emission: 520nm

Peak Excitation: 494nm

Filter: 530/30

Brightness (1=dim,5=brightest): 3

Isotype: Rat IgG2b

Formulation: Phosphate-buffered aqueous solution, ≤0.09% Sodium azide, may contain carrier protein/stabilizer, pH7.2.

Storage: Product should be kept at 2-8°C and protected from prolonged exposure to light.

Applications: FC

Description

The DTA-1 monoclonal antibody specifically reacts with mouse Glucocorticoid-Induced TNFR-related protein, also known as GITR and TNFRSF18, a 66-70 kDa homodimer glycoprotein, detected in the T cells treated with glucocorticoid dexamethasone. GITR is also expressed in naïve mice by CD25⁺/CD4⁺/CD8a⁻ thymocytes and on CD25⁺/CD4⁺/CD45RB⁻ low splenocytes. Low levels were detected in splenic CD25⁺/CD4⁺/CD45RB⁻ low T cells, B cells, dendritic cells and macrophages. A GITR ligand was detected on dendritic cells, macrophages and B cells. The DTA-1 antibody stimulates GITR and abrogates suppression by T regulatory cells (Treg), without affecting their proliferation.

DTA-1 administration or the removal of GITR-expressing cells led to organ specific autoimmune disease.

Preparation & Storage

The product should be stored undiluted at 4°C and should be protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified utilizing affinity chromatography and unreacted dye was removed from the product.

Application Notes

The antibody has been analyzed for quality through the flow cytometric analysis of the relevant cell type. For flow cytometric staining, the suggested use of this reagent is ≤0.06 ug per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.

References

1. Ko, K., Yamazaki, S., Nakamura, K., Nishioka, T., Hirota, K., Yamaguchi, T., ... ; Sakaguchi, S. (2005). Treatment of advanced tumors with agonistic anti-GITR mAb and its effects on tumor-infiltrating Foxp3⁺ CD25⁺ CD4⁺ regulatory T cells.; *The Journal of experimental medicine*,;202(7), 885-891.
2. Shimizu, J., Yamazaki, S., Takahashi, T., Ishida, Y., ; Sakaguchi, S. (2002). Stimulation of CD25⁺ CD4⁺ regulatory T cells through GITR breaks immunological self-tolerance.; *Nature immunology*,;3(2), 135-142.
3. Tone, M., Tone, Y., Adams, E., Yates, S. F., Frewin, M. R., Cobbold, S. P., ; Waldmann, H. (2003). Mouse glucocorticoid-induced tumor necrosis factor receptor ligand is costimulatory for T cells.; *Proceedings of the National Academy of Sciences*,;100(25), 15059-15064.