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1. Description

Components	0.5 mg in 0.5 mL Anti-GITR pure, human.
Clone	DT5D3 (isotype: mouse IgG1)
Capacity	0.5 mg.
Product format	The antibody is supplied in phosphate-buffered saline (PBS), pH 7.2. Endotoxin levels have been tested and do not exceed 0.01 ng/μg of protein.
Storage	Store protected from light at 2–8 °C. Do not freeze. The expiration date is indicated on the vial label.

This product contains no preservative and is sterile filtered; always handle under aseptic conditions.

1.1 Background information

Glucocorticoid-induced tumor necrosis factor receptor-related protein (GITR) is an inducible type I transmembrane protein and member of the tumor necrosis factor receptor (TNFR) superfamily.¹ GITR is also known as TNFRSF18.²

GITR is expressed at high levels on CD4⁺CD25⁺ regulatory T cells (Tregs) and at low levels on thymocyte subsets, resting T cells, B cells, and macrophages. Upon activation, expression on CD4⁺ and CD8⁺ T cells is upregulated. Triggering of GITR has been described to modulate Treg function and costimulate effector T cells.³ Stimulation of T cells through GITR can abrogate the inhibitory function of Tregs. It is hypothesized that GITR plays a role in the maintenance of immunological self tolerance, and mouse models of autoimmune disease suggest that GITR activation may break self-tolerance and induce autoimmunity.⁴

1.2 Applications

- *In vitro* inhibition of GITRL binding.

2. References

1. Nocentini, G. *et al.* (1997) A new member of the tumor necrosis factor/nerve growth factor receptor family inhibits T cell receptor-induced apoptosis. *Proc. Natl. Acad. Sci. U.S.A.* 94: 6216–6221.
2. Gurney, A. L. *et al.* (1999) Identification of a new member of the tumor necrosis factor family and its receptor, a human ortholog of mouse GITR. *Curr. Biol.* 9: 215–218.
3. Nocentini, G. *et al.* (2007) GITR/GITRL: More than an effector T cell co-stimulatory system. *Eur. J. Immunol.* 37: 1165–1169.
4. Shimizu, J. *et al.* (2002) Stimulation of CD25⁺CD4⁺ regulatory T cells through GITR breaks immunological self-tolerance. *Nat. Immunol.* 3: 135–142.

All protocols and data sheets are available at www.miltenyibiotec.com.

Warnings

Reagents contain sodium azide. Under acidic conditions sodium azide yields hydrazoic acid, which is extremely toxic. Azide compounds should be diluted with running water before discarding. These precautions are recommended to avoid deposits in plumbing where explosive conditions may develop.

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