Technical Data Sheet

Purified NA/LE Rat Anti-Mouse GITR

Product Information

Material Number:	558213
Size:	0.5 mg
Concentration:	1.0 mg/ml
Clone:	DTA-1
Immunogen:	Mouse CD25+ CD4+ T Cell Line
Isotype:	Rat (WI) IgG2b, λ
Reactivity:	QC Testing: Mouse
Storage Buffer:	No azide/low endotoxin: Aqueous buffered solution containing no preservative,
	0.2µm sterile filtered. Endotoxin level is $\leq 0.01 \text{ EU/µg}$ ($\leq 0.001 \text{ ng/µg}$) of

protein as determined by the LAL assay.

Description

The DTA-1 antibody reacts with GITR [Glucocorticoid-induced Tumor necrosis factor (TNF) receptor family-Related], a 66-70-kDa homodimer glycoprotein that is a member of the TNF receptor superfamily and is also known as TNFRSF18. As its name implies, GITR expression was first detected in T lymphocytes that had been treated with dexamethasone, a glucocorticoid. In normal naive mice, GITR is expressed at moderate levels on CD25-positive/CD4-positive/CD4a-negative thymocytes and on CD25-positive/CD4-positive/CD45RB-low splenocytes. It is also expressed at low levels on splenic CD25-negative/CD4-positive/CD45RB-low T lymphocytes, B lymphocytes, macrophages, and dendritic cells. Activation of T and B lymphocytes upregulates GITR expression. GITR is a costimulatory receptor that plays an important role in Regulatory T (Treg)-cell functions, and a GITR Ligand has been detected on B lymphocytes, macrophages, and dendritic cells. mAb DTA-1 abrogates suppression by Treg cells without affecting their proliferative response, while it is co-stimulatory for T lymphocytes that are not Treg cells.

Preparation and Storage

Store undiluted at 4°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

This preparation contains no preservatives, thus it should be handled under aseptic conditions.

Application Notes

Application

Flow cytometry	Routinely Tested
Blocking	Reported
(Co)-stimulation	Reported

Suggested Companion Products

Catalog Number	Name	Size	Clone
553985	Purified NA/LE Rat IgG2b, κ Isotype Control	0.5 mg	A95-1

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.

2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

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Kohm AP, Williams JS, Miller SD. Ligation of the glucocorticoid-induced TNF receptor enhances autoreactive CD4-positive T cell activation and experimental autoimmune encephalomyelitis. J Immunol. 2004; 172:4686-4690. (Biology)

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Shimuzu J, Yamazaki S, Takahashi T, Ishida Y, Sakaguchi S. Stimulation of CD25-positive CD4-positive regulatory T cells through GITR breaks immunological self-tolerance. *Nat Immunol.* 2002; 3(2):135-142. (Immunogen)

Tone M, Tone Y, Adams E, et al. Mouse glucocorticoid-induced tumor necrosis factor receptor ligand is costimulatory for T cells. Proc Natl Acad Sci U S A. 2003; 100(25):15059-15064. (Biology)

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