

Technical Data Sheet

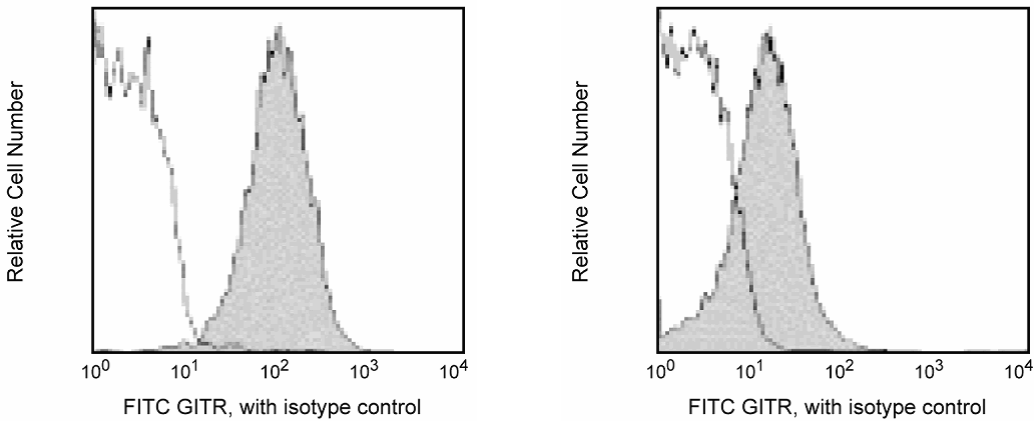
FITC Rat Anti-Mouse GITR

Product Information

Material Number:	558139
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	DTA-1
Immunogen:	Mouse CD25+ CD4+ T Cell Line
Isotype:	Rat (WI) IgG2b, λ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

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/CD8a-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.



Expression of GITR on CD4-positive splenocytes. BALB/c splenocytes were stained with APC rat anti-mouse CD25 mAb PC61 (Cat. No. 557192), PE rat anti-mouse CD4 mAb RM4-5 (Cat. No. 553048/553049), and either FITC rat IgG2b isotype control mAb A95-1 (Cat. No. 553988, open histograms) or FITC mAb DTA-1 (shaded histograms). Viable leukocytes were selected by exclusion of propidium iodide (Cat. No. 556463). The left panel represents the expression of GITR by CD25+ CD4+ T lymphocytes (Treg cells), and the right panel shows CD25- CD4+ T lymphocytes. Flow cytometry was performed on a BD FACSCalibur™ flow cytometry system.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. The antibody was conjugated with FITC under optimum conditions, and unreacted FITC was removed. Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application

Flow cytometry	Routinely Tested
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## Suggested Companion Products

Catalog Number	Name	Size	Clone
553988	FITC Rat IgG2b, $\kappa$ Isotype Control	0.25 mg	A95-1
557192	APC Rat Anti-Mouse CD25	0.1 mg	PC61
553048	PE Rat Anti-Mouse CD4	0.1 mg	RM4-5

## Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to [www.bdbiosciences.com/pharming/en/protocols](http://www.bdbiosciences.com/pharming/en/protocols) for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

## References

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