Technical Data Sheet

Purified NA/LE Mouse Anti-Rat CD3

Product Information

Material Number:	**554829**
Size:	0.5 mg
Concentration:	1.0 mg/ml
Clone:	G4.18
Immunogen:	PHA-stimulated rat lymph node and spleen cells
Isotype:	Mouse (BALB/c) IgG3, κ
Reactivity:	QC Testing: Rat
Storage Buffer:	No azide/low endotoxin: Aqueous buffered solution containing protein stabilizer, no preservative, 0.2µm sterile filtered. Endotoxin level is ≤0.01 EU/µg (≤0.001 ng/µg) of protein as determined by the LAL assay.

Description

The G4.18 antibody reacts with the T-cell receptor-associated CD3 cell-surface antigen found on thymocytes, peripheral T lymphocytes, and dendritic epidermal T cells. It has been reported that CD3 expression is down-regulated within 24 hours in concanavalin A-stimulated rat T cells, and soluble mAb inhibits the allogeneic mixed-lymphocyte proliferative response and cell-mediated cytotoxicity to allogeneic target cells. In vivo treatment with G4.18 mAb prevents cardiac and skin allograft rejection, resulting in donor-specific tolerance. Pre-incubation of splenocytes with the alternate anti-rat CD3 monoclonal antibody, 1F4 (Cat. No. 556970), blocks staining with mAb G4.18.

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
Bioassay	Tested During Development
Immunoprecipitation	Reported
(Co)-stimulation	Reported
Immunohistochemistry-frozen	Reported
Western blot	Reported

Suggested Companion Products

Catalog Number	Name	Size	Clone
553466	Purified NA/LE Mouse IgG3, κ Isotype Control	0.5 mg	J606
555988	FITC Goat Anti-Mouse IgG/IgM	0.5 mg	Polyclonal

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Brenan M, Rees DJ. Sequence analysis of rat integrin alpha E1 and alpha E2 subunits: tissue expression reveals phenotypic similarities between intraepithelial lymphocytes and dendritic cells in lymph. *Eur J Immunol.* 1997; 27(11):3070-3079. (Clone-specific: Immunofluorescence, Western blot)

Naper C, Vaage JT, Lambracht D, et al. Alloreactive natural killer cells in the rat: complex genetics of major histocompatibility complex control. *Eur J Immunol.* 1995; 25(5):1249-1256. (Clone-specific: Cytotoxicity)

Nelson DJ, McMenamin C, McWilliam AS, Brenan M, Holt PG. Development of the airway intraepithelial dendritic cell network in the rat from class II major histocompatibility (Ia)-negative precursors: differential regulation of Ia expression at different levels of the respiratory tract. *J Exp Med.* 1994; 179(1):203-212. (Clone-specific: Immunohistochemistry)

Nicolls MR, Aversa GG, Pearce NW, et al. Induction of long-term specific tolerance to allografts in rats by therapy with an anti-CD3-like monoclonal antibody. *Transplantation*. 1993; 55(3):459-468. (Immunogen: (Co)-stimulation, Flow cytometry, Immunohistochemistry, Immunoprecipitation, Inhibition, Stimulation)

Strickland D, Kees UR, Holt PG. Regulation of T-cell activation in the lung: alveolar macrophages induce reversible T-cell anergy in vitro associated with inhibition of interleukin-2 receptor signal transduction. *Immunology.* 1996; 87(2):250-258. (Biology)

Upham JW, Strickland DH, Bilyk N, Robinson BW, Holt PG. Alveolar macrophages from humans and rodents selectively inhibit T-cell proliferation but permit T-cell activation and cytokine secretion. *Immunology.* 1995; 84(1):142-147. (Biology)

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