# Technical Data Sheet

# Purified NA/LE Rat Anti-Mouse CD278

#### **Product Information**

**Material Number:** 552437

Alternate Name: ICOS; Ailim; CCLP; CRP-1; Ly115; Inducible T-cell costimulator

Size 1.0 mg/ml Concentration: 7E.17G9 Clone:

Immunogen: Mouse Icos cDNA and ICOS hexahistidine fusion protein

Isotype: Rat IgG2b, κ Reactivity: QC Testing: Mouse

No azide/low endotoxin: Aqueous buffered solution containing no preservative, Storage Buffer:

 $0.2\mu m$  sterile filtered. Endotoxin level is  $\leq 0.01$  EU/ $\mu g$  ( $\leq 0.001$  ng/ $\mu g$ ) of

protein as determined by the LAL assay.

### Description

The 7E.17G9 antibody reacts with CD278, the Inducible Costimulatory molecule (ICOS), a 47-57 kDa homodimeric glycoprotein of the CD28 family of costimulatory molecules. ICOS is expressed on subpopulations of CD4-CD8- and CD4+CD8- (but not CD4-CD8+ or CD4+CD8+) thymocytes, on some T-cell lines, and on small numbers of peripheral leukocytes. It is upregulated on T lymphocytes following activation via the T-cell receptor. The T-cell activation marker H4 is the same molecule as ICOS. ICOS is a costimulatory receptor, and its ligand on antigen-presenting cells has been called B7RP-1, GL50, B7h, B7-H2, or LICOS. There is considerable evidence that the interaction of ICOS with its ligand is involved in the regulation of many, but not all, T-cell-mediated immune responses.

### **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

Аррисация		
	Flow cytometry	Routinely Tested
	Blocking	Reported

# **Recommended Assay Procedure:**

The antigen is expressed at only moderate density on activated T lymphocytes. It may be desirable to amplify the staining by using a biotinylated second-step antibody with a bright third-step reagent, such as Streptavidin-PE (Cat. No. 554061). Furthermore, we have found that polyclonal goat anti-rat Ig is weakly reactive with this rat IgG2b mAb, so we recommend the use of biotinylated anti-rat IgG2b mAb RG7/11.1 (Cat. No. 553898) as the second step.

## **Suggested Companion Products**

Catalog Number	Name Name	Size	Clone
554061	PE Streptavidin	0.5 mg	(none)
553898	Biotin Mouse Anti-Rat IgG2b	0.5 mg	RG7/11.1
553985	Purified NA/LE Rat IgG2b, κ Isotype Control	0.5 mg	A95-1

### **Product Notices**

- Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

#### References

Buonfiglio D, Bragardo M, Redoglia V, et al. The T cell activation molecule H4 and the CD28-like molecule ICOS are identical. Eur J Immunol. 2000; 30(12):3463-3467. (Biology)

Chambers CA. The expanding world of co-stimulation: the two-signal model revisited. Trends Immunol. 2001; 22(4):217-223. (Biology)

Dong C, Temann UA, Flavell RA. Cutting edge: critical role of inducible costimulator in germinal center reactions. J Immunol. 2001; 166(6):3659-3662. (Biology) Gonzalo JA, Delaney T, Corcoran J, Goodearl A, Gutierrez-Ramos JC, Coyle AJ. Cutting edge: the related molecules CD28 and inducible costimulator deliver both unique and complementary signals required for optimal T cell activation. J Immunol. 2001; 166(1):1-5. (Biology)

Mages HW, Hutloff A, Heuck C, et al. Molecular cloning and characterization of murine ICOS and identification of B7h as ICOS ligand. Eur J Immunol. 2000; 30(4):1040-1047. (Biology)

McAdam AJ, Chang TT, Lumelsky AE, et al. Mouse inducible costimulatory molecule (ICOS) expression is enhanced by CD28 costimulation and regulates differentiation of CD4+ T cells. J Immunol. 2000; 165(9):5035-5040. (Immunogen)

Schwartz RH. Immunology. It takes more than two to tango. Nature. 2001; 409(6816):31-32. (Biology)

Sperling AI, Bluestone JA. ICOS costimulation: It's not just for TH2 cells anymore. Nat Immunol. 2001; 2(7):573-574. (Biology)

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