

Technical Data Sheet

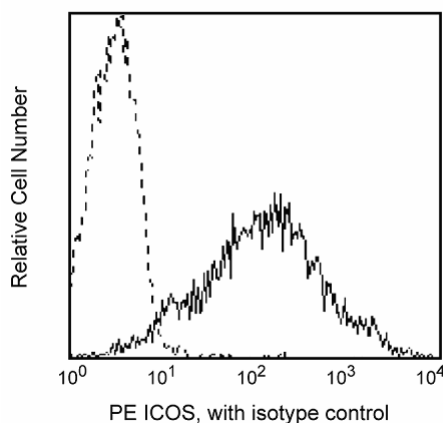
PE Mouse Anti-Human CD278

Product Information

| | |
|------------------|---|
| Material Number: | 557802 |
| Alternate Name: | ICOS |
| Size: | 100 tests |
| Vol. per Test: | 20 µl |
| Clone: | DX29 |
| Immunogen: | Activated human T cells |
| Isotype: | Mouse IgG1, κ |
| Reactivity: | QC Testing: Human |
| Storage Buffer: | Aqueous buffered solution containing BSA and ≤0.09% sodium azide. |

Description

Monoclonal antibody DX29 reacts with inducible costimulatory (ICOS) molecule. ICOS is a homodimeric membrane glycoprotein, member of the CD28 family, of approximately 50 - 60 kDa, highly expressed on activated T cells. It is the receptor for B7 related protein 1 (B7RP-1) and also, like CD28, ICOS is costimulatory signal for T cell activation, proliferation and cytokine production. It is not expressed on resting or activated B cells, monocytes, NK cells, granulocytes, dendritic cells or platelets. Unlike the constitutively expressed CD28, ICOS expression is de novo. Reports describe similarities of CD28 and ICOS in T cell activation, however, it has been suggested that ICOS may play an important role in IL-10 production. In presence IL-10, purified recombinant human ICOS significantly increased in vitro B cell growth stimulated by pokeweed mitogen (PWM) and enhanced production of IgG.



Profile of ICOS (DX29) reactivity on PHA-stimulated (3 days) peripheral blood mononuclear cells analyzed by flow cytometry.

Preparation and Storage

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

The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Store undiluted at 4° C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application

| | |
|----------------|------------------|
| Flow cytometry | Routinely Tested |
|----------------|------------------|

Suggested Companion Products

| Catalog Number | Name | Size | Clone |
|----------------|----------------------------------|-----------|---------|
| 555749 | PE Mouse IgG1, κ Isotype Control | 100 tests | MOPC-21 |

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Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 X 10⁶ cells in a 100-μl experimental sample (a test).
2. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
3. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
4. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/pharmingen/colors.
5. 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.
6. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

- Aicher A, Hayden-Ledbetter M, Brady WA, et al. Characterization of human inducible costimulator ligand expression and function. *J Immunol.* 2000; 164(9):4689-4696.(Biology)
- Dong C, Nurieva RI. Regulation of immune and autoimmune responses by ICOS. *J Autoimmun.* 2003; 21(3):255-260.(Biology)
- Okamoto N, Tezuka K, Kato M, Abe R, Tsuji T. PI3-kinase and MAP-kinase signaling cascades in AILIM/ICOS- and CD28-costimulated T-cells have distinct functions between cell proliferation and IL-10 production. *Biochem Biophys Res Commun.* 2003; 310(3):691-702.(Biology)
- Sakamoto S, Tezuka K, Tsuji T, Hori N, Tamatani T. AILIM/ICOS: its expression and functional analysis with monoclonal antibodies. *Hybrid Hybridomics.* 2001; 20(5-6):293-303.(Biology)