

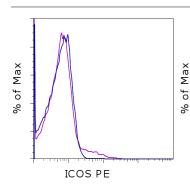
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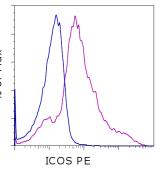
## Anti-Human CD278 (ICOS) PE

Catalog Number: 12-9948

Also known as:

RUO: For Research Use Only. Not for use in diagnostic procedures.





Staining of 3-day unstimulated (left) and 3-day anti-CD3/CD28-stimulated (right) human peripheral blood cells with Mouse IgG1 K Isotype Control PE (cat. 12-4714) (blue histogram) or Anti-Human CD278 (ICOS) PE (purple histogram). Cell in the lymphocytes gate were used for analysis.

### **Product Information**

Contents: Anti-Human CD278 (ICOS) PE

REF

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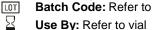
Clone: ISA-3

**Concentration:** 5 uL (0.03 ug)/test **Host/Isotype:** Mouse IgG1, kappa



**Formulation:** aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer **Temperature Limitation:** Store at 2-8°C. Do not

freeze. Light sensitive material. **Batch Code:** Refer to vial





The ISA-3 monoclonal antibody reacts with human ICOS (Inducible COStimulatory molecule), also known as H4, CRP-1 and AILIM. ICOS is a T cell specific activation molecule and a third member of the CD28/CTLA-4 family. Human ICOS has a relative molecular mass of 55-60 kDa, composed of 27 kDa and 29 kDa chains. Human ICOS on activated T cells has potent costimulatory activity for T cell activation and is required for humoral immune responses, in particular for memory B cell and plasma cell generation. ICOS binds to its ligand, B7h/B7RP-1 expressed on activated APCs (antigen presenting cells) and on a number of inflamed peripheral tissues. Plate-bound ISA-3 is costimulatory for T cells and induces production of IL-4, IL-5, IL-10 and other cytokines, but not IL-2. ISA-3 has the same reactivity pattern and characteristics as F44. ISA-3 was generated against the human ICOS antigen. C398.4A, anti-mouse ICOS/H4 (catalog # 14-9949), was shown to cross-react with human ICOS but binds to an epitope different from ISA-3. C398.4A stains activated cells brighter than ISA-3; however, it also exhibits higher staining of non-activated human peripheral blood or isolated PBMC. To achieve the brightest staining of ICOS on activated human T cells, please use 13-9948 or 12-9948 rather than 11-9948.

### **Applications Reported**

The ISA-3 antibody has been reported for use in flow cytometric analysis.

#### **Applications Tested**

This ISA-3 antibody has been pre-titrated and tested by flow cytometric analysis of unstimulated and CD3/CD28-activated (3 days) human blood leukocytes. This can be used at 5  $\mu$ L (0.03  $\mu$ g) per test. A test is defined as the amount ( $\mu$ g) of antibody that will stain a cell sample in a final volume of 100  $\mu$ L. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test.

#### References

Hutloff A, Dittrich AM, Beier KC, Eljaschewitsch B, Kraft R, Anagnostopoulos I, Kroczek RA. 1999. ICOS is an inducible T-cell co-stimulator structurally and functionally related to CD28. Nature. 397(6716):263-6.

Buonfiglio D, Bragardo M, Redoglia V, Vaschetto R, Bottarel F, Bonissoni S, Bensi T, Mezzatesta C, Janeway Jr CA,



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Dianzani U. 2000. The T cell activation molecule H4 and the CD28-like molecule ICOS are identical. Eur J Immunol. 30(12):3463-7.

Grimbacher B, Hutloff A, Schlesier M, Glocker E, Warnatz K, Drager R, Eibel H, Fischer B, Schaffer AA, Mages HW, Kroczek RA, Peter HH. 2003. Homozygous loss of ICOS is associated with adult-onset common variable immunodeficiency. Nat Immunol. 4(3):261-8.

Beier KC, Hutloff A, Dittrich AM, Heuck C, Rauch A, Buchner K, Ludewig B, Ochs HD, Mages HW, Kroczek RA. 2000. Induction, binding specificity and function of human ICOS. Eur. J. Immunol. 30, 3707.

#### Related Products

12-4714 Mouse IgG1 K Isotype Control PE (P3.6.2.8.1)