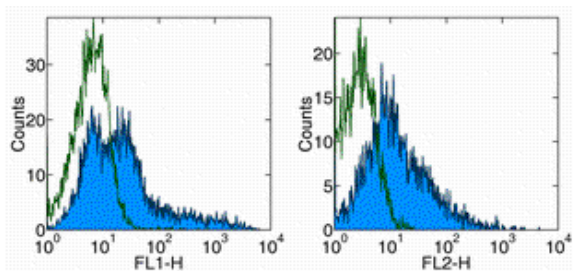


## Anti-Human CD278 (ICOS) Purified

**Catalog Number:** 14-9948

**Also Known As:**

**RUO: For Research Use Only**



Staining of CD3 + CD28 stimulated human PBMC with Anti-Human CD278 (ICOS) FITC (left), and Anti-Human CD278 (ICOS) PE (right). Appropriate isotype controls were used (open histogram). Total viable cells were used for analysis

### Product Information

**Contents:** Anti-Human CD278 (ICOS) Purified

**REF** **Catalog Number:** 14-9948

**Clone:** ISA-3

**Concentration:** 0.5 mg/mL

**Host/Isotype:** Mouse IgG1, kappa

**Formulation:** aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer



**Temperature Limitation:** Store at 2-8°C.



**Batch Code:** Refer to Vial



**Use By:** Refer to Vial



**Caution, contains Azide**

### Description

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 (cat. 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, immunoprecipitation, and immunohistochemical staining of frozen tissue sections. It has also been reported in *in vitro* functional assays. (Please use Functional Grade purified ISA-3, cat. 16-9948, in functional assays.)

### Applications Tested

The ISA-3 antibody has been tested by flow cytometric analysis of unstimulated and PHA-activated (2 days) human blood leukocytes. This can be used at less than or equal to 0.5 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

### References

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

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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.

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.

**Related Products**

14-4714 Mouse IgG1 K Isotype Control Purified (P3.6.2.1)

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