

**Brilliant Violet 750™ anti-human/mouse/rat CD278 (ICOS)**

**Catalog # / Size:** 2167785 / 25 tests  
2167790 / 100 tests

**Clone:** C398.4A

**Isotype:** Hamster IgG

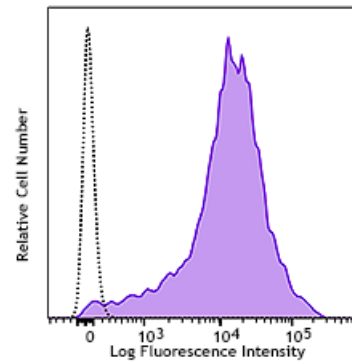
**Immunogen:** Mouse T cell clone D10.G4.1

**Reactivity:** Human, Mouse, Non-human primate, Other, Rat

**Preparation:** The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 750™ under optimal conditions.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)

**Concentration:** Lot-specific



PHA-stimulated (3 days) human peripheral blood lymphocytes were stained with CD278 (ICOS) (clone C398.4A) Brilliant Violet 750™ (filled histogram), or mouse IgG1, κ Brilliant Violet 750™ isotype control (open histogram).

**Applications:**

**Applications:** Flow Cytometry

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is 5 µL per million cells in 100 µL staining volume or 5 µL per 100 µL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

Brilliant Violet 750™ excites at 405 nm and emits at 750 nm. The bandpass filter 780/60 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel. Refer to your instrument manual or manufacturer for support. Brilliant Violet 750™ is a trademark of Sirigen Group Ltd.

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**Application Notes:** The C398.4A antibody is useful for flow cytometric analysis and is able to costimulate T cell activation and proliferation. Additional reported applications (for the relevant formats) include: immunoprecipitation<sup>1</sup> and *in vitro* costimulation of T cell activation<sup>1,3,4</sup>.

- Application References:**
1. Redoglia V, *et al.* 1996. *Eur. J. Immunol.* 26:2781. (FC IP Costim)
  2. Yagi J, *et al.* 2003. *J. Immunol.* 171:783. (FC)
  3. Arimura Y, *et al.* 2002. *Int. Immunol.* 14:555. (Costim)
  4. Arimura Y, *et al.* 2004. *J. Biol. Chem.* 279:11408. (Costim)

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**Description:** ICOS, also known as inducible costimulatory molecule and H4, is a 47-57 kD protein. This protein is homologous to the CD28/CTLA-4 proteins. ICOS is expressed on activated T cells and a subset of thymocytes. It is able to costimulate T cells proliferation. In addition, ICOS is involved in humoral immune responses (B cell germinal center formation). The ICOS ligand is B7h/B7RP-1 or B7-H2. ICOS stimulation has been shown to potentiate TCR-mediated IL-4 and IL-10 production and has been proposed to play a role in Th2 cell development.

**Antigen**  
**References:**

1. Redoglia V, et al. 1996. *Eur. J. Immunol.* 26:2781.
2. Hutloff A, et al. 1999. *Nature* 397:263.
3. Buonfiglio D, et al. 2000. *Eur. J. Immunol.* 30:3463.
4. Coyle AJ, et al. 2000. *Immunity* 13:95.