

Brilliant Violet 650™ anti-human/mouse/rat CD278 (ICOS) Antibody

Catalog# / Size	313549 / 25 tests 313550 / 100 tests
Clone	C398.4A
Regulatory Status	RUO
Other Names	Inducible COStimulatory molecule, H4
Isotype	Armenian Hamster IgG
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.

Product Details

Verified Reactivity	Human, Mouse, Rat
Reported Reactivity	African Green, Baboon, Cynomolgus, Rhesus, Pig
Antibody Type	Monoclonal
Host Species	Armenian Hamster
Immunogen	Mouse T cell clone D10.G4.1
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).
Preparation	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 650™ under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested
Recommended Usage	<p>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.</p> <p>Brilliant Violet 650™ excites at 405 nm and emits at 645 nm. The bandpass filter 660/20 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 650™ is a trademark of Sirigen Group Ltd.</p> <p>Learn more about Brilliant Violet™.</p> <p>This product is subject to proprietary rights of Sirigen Inc. and is made and sold under license from Sirigen Inc. The purchase of this product conveys to the buyer a non-transferable right to use the purchased product for research purposes only. This product may not be resold or incorporated in any manner into another product for resale. Any use for therapeutics or diagnostics is strictly prohibited. This product is covered by U.S. Patent(s), pending patent applications and foreign equivalents.</p>
Excitation Laser	Violet Laser (405 nm)
Application Notes	1. 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: immunoprecipitation¹, *in vitro* costimulation of T cell activation^{1,3,4}, and spatial biology (IBEX)^{5,6}. The LEAF™ purified antibody (Endotoxin < 0.1 EU/μg, Azide-Free, 0.2 μm filtered) is recommended for functional assays (Cat. No. 313512).

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)
5. Radtke AJ, *et al.* 2020. *Proc Natl Acad Sci USA.* 117:33455-33465. (SB) [PubMed](#)
6. Radtke AJ, *et al.* 2022. *Nat Protoc.* 17:378-401. (SB) [PubMed](#)

Product Citations

1. Lederer K, *et al.* 2022. *Cell.* . [PubMed](#)

RRID

AB_2749928 (BioLegend Cat. No. 313549)
AB_2749929 (BioLegend Cat. No. 313550)

Antigen Details

Structure	CD28/CTLA-4, 47-57 kD
Distribution	Activated T cells, subset of thymocytes
Function	Costimulates T cell activation, proliferation, humoral immune response
Ligand/Receptor	B7h/B7RP-1/GL-50
Cell Type	T cells, Thymocytes, Tregs
Biology Area	Costimulatory Molecules, Immunology
Molecular Family	CD Molecules
Antigen References	<ol style="list-style-type: none">1. Redoglia V, <i>et al.</i> 1996. <i>Eur. J. Immunol.</i> 26:2781.2. Hutloff A, <i>et al.</i> 1999. <i>Nature</i> 397:263.3. Buonfiglio D, <i>et al.</i> 2000. <i>Eur. J. Immunol.</i> 30:3463.4. Coyle AJ, <i>et al.</i> 2000. <i>Immunity</i> 13:95.
Gene ID	100048841 29851 64545

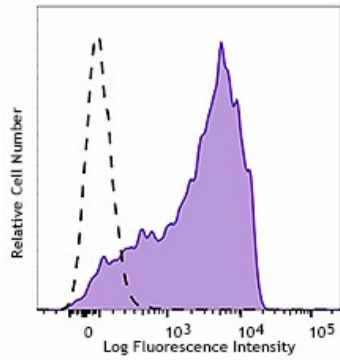
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

Purified anti-human/mouse/rat CD278 (ICOS), Biotin anti-human/mouse/rat CD278 (ICOS), FITC anti-human/mouse/rat CD278 (ICOS), PE anti-human/mouse/rat CD278 (ICOS), APC anti-human/mouse/rat CD278 (ICOS), Alexa Fluor® 488 anti-human/mouse/rat CD278 (ICOS), Alexa Fluor® 647 anti-human/mouse/rat CD278 (ICOS), PerCP/Cyanine5.5 anti-human/mouse/rat CD278 (ICOS), PE/Cyanine7 anti-human/mouse/rat CD278 (ICOS), Pacific Blue™ anti-human/mouse/rat CD278 (ICOS), Brilliant Violet 421™ anti-human/mouse/rat CD278 (ICOS), Brilliant Violet 510™ anti-human/mouse/rat CD278 (ICOS), APC/Cyanine7 anti-human/mouse/rat CD278 (ICOS), PE/Dazzle™ 594 anti-human/mouse/rat CD278 (ICOS), Alexa Fluor® 700 anti-human/mouse/rat CD278 (ICOS), APC/Fire™ 750 anti-human/mouse/rat CD278 (ICOS), Brilliant Violet 785™ anti-human/mouse/rat CD278 (ICOS), Brilliant Violet 605™ anti-human/mouse/rat CD278 (ICOS), Ultra-LEAF™ Purified anti-human/mouse/rat CD278 (ICOS), GoInVivo™ Purified anti-human/mouse/rat CD278 (ICOS), Brilliant Violet 711™ anti-human/mouse/rat CD278 (ICOS), Brilliant Violet 650™ anti-human/mouse/rat CD278 (ICOS), TotalSeq™-B0171 anti-human/mouse/rat CD278 (ICOS), TotalSeq™-C0171 anti-human/mouse/rat CD278 (ICOS), TotalSeq™-A0171 anti-human/mouse/rat CD278 (ICOS), Brilliant Violet 750™ anti-human/mouse/rat CD278 (ICOS), TotalSeq™-D0171 anti-human/mouse/rat CD278 (ICOS) Antibody, PE/Cyanine5 anti-human/mouse/rat CD278 (ICOS)

Product Data



PHA-stimulated human peripheral blood lymphocytes (3 days) stained with CD278 (ICOS, clone C398.4A) Brilliant Violet 650™ (filled histogram) or Armenian hamster IgG isotype control Brilliant Violet 650™ (open histogram).

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