

Spark Blue™ 550 anti-human/mouse/rat CD278 (ICOS) Antibody

Catalog# / Size	313573 / 25 µg 313574 / 100 µg
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
Preparation	The antibody was purified by affinity chromatography and conjugated with Spark Blue™ 550 under optimal conditions.
Concentration	0.5 mg/mL
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	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 ≤ 1.0 µg per million cells in 100 µL volume. It is recommended that the reagent be titrated for optimal performance for each application. * Spark Blue™ 550 has a maximum excitation of 516 nm and a maximum emission of 540 nm.
Excitation Laser	Blue Laser (488 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

(PubMed link indicates
BioLegend citation)

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](#)

RRID

AB_3717177 (BioLegend Cat. No. 313573)
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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	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

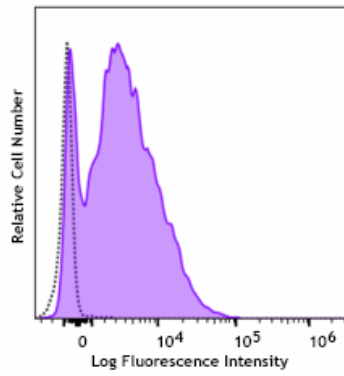
Related Protocols

- [Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

TotalSeq™-D0171 anti-human/mouse/rat CD278 (ICOS) Antibody, PE/Cyanine5 anti-human/mouse/rat CD278 (ICOS), Spark Red™ 718 anti-human/mouse/rat CD278 (ICOS), PE anti-human/mouse/rat CD278 (ICOS), Purified anti-human/mouse/rat CD278 (ICOS), Biotin anti-human/mouse/rat CD278 (ICOS), FITC anti-human/mouse/rat CD278 (ICOS), Alexa Fluor® 700 anti-human/mouse/rat CD278 (ICOS), APC/Cyanine7 anti-human/mouse/rat CD278 (ICOS), PE/Dazzle™ 594 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), GolnVivo™ Purified anti-human/mouse/rat CD278 (ICOS), Pacific Blue™ anti-human/mouse/rat CD278 (ICOS), Spark PLUS UV395™ anti-human/mouse/rat CD278 (ICOS), StarBright UltraViolet 740 anti-human/mouse/rat CD278 (ICOS), Spark Blue™ 550 anti-human/mouse/rat CD278 (ICOS) Antibody, Alexa Fluor® 488 anti-human/mouse/rat CD278 (ICOS), Alexa Fluor® 647 anti-human/mouse/rat CD278 (ICOS), Brilliant Violet 650™ anti-human/mouse/rat CD278 (ICOS), Brilliant Violet 711™ anti-human/mouse/rat CD278 (ICOS), APC/Fire™ 750 anti-human/mouse/rat CD278 (ICOS), Brilliant Violet 750™ anti-human/mouse/rat CD278 (ICOS), APC anti-human/mouse/rat CD278 (ICOS), TotalSeq™-A0171 anti-human/mouse/rat CD278 (ICOS), PerCP/Cyanine5.5 anti-human/mouse/rat CD278 (ICOS), PE/Cyanine7 anti-human/mouse/rat CD278 (ICOS), Brilliant Violet 421™ anti-human/mouse/rat CD278 (ICOS), Brilliant Violet 510™ anti-human/mouse/rat CD278 (ICOS), StarBright UltraViolet 795 anti-human/mouse/rat CD278 (ICOS), TotalSeq™-B0171 anti-human/mouse/rat CD278 (ICOS), TotalSeq™-C0171 anti-human/mouse/rat CD278 (ICOS)

Product Data



PHA-stimulated (3 days) human peripheral blood lymphocytes were stained with anti-human/mouse/rat CD278 (ICOS) (clone C398.4A) Spark Blue™ 550 (filled histogram). Open histogram represents unstained cells.

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