

CD278 (ICOS) Monoclonal Antibody (ISA-3), Super Bright™ 436, eBioscience™

Product Details	
Size	100 Tests
Species Reactivity	Human
Published Species	Human
Host/Isotype	Mouse / IgG1, kappa
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), Super Bright™ 436, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	ISA-3
Conjugate	Super Bright™ 436
Form	Liquid
Concentration	5 µL/Test
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2637393

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	5 µL (0.25 µg)/test	9 Publications
T-Cell Activation (TCA)	-	2 Publications

Product Specific Information

Description: The ISA-3 monoclonal antibody reacts with human CD278 also known as Inducible Costimulatory molecule (ICOS), 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. 14-9949-82), 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 13-9948-82 or 12-9948-42 rather than 11-9948-42.

Applications Reported: This 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 stimulated normal human peripheral blood cells. This can be used at 5 µL (0.25 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 μ L. Cell number should be determined empirically but can range from 10^5 to 10^8 cells/test.

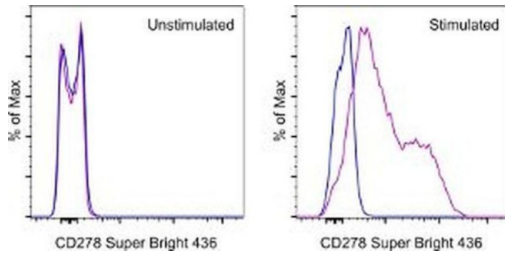
Super Bright 436 can be excited with the violet laser line (405 nm) and emits at 436 nm. We recommend using a 450/50 bandpass filter, or equivalent. Please make sure that your instrument is capable of detecting this fluorochrome.

When using two or more Super Bright dye-conjugated antibodies in a staining panel, it is recommended to use Super Bright Complete Staining Buffer (Product # SB-4401) to minimize any non-specific polymer interactions. Please refer to the datasheet for Super Bright Staining Buffer for more information.

Excitation: 405 nm; Emission: 436 nm; Laser: Violet Laser

Super Bright Polymer Dyes are sold under license from Becton, Dickinson and Company.

Product Images For CD278 (ICOS) Monoclonal Antibody (ISA-3), Super Bright™ 436, eBioscience™



CD278 (ICOS) Antibody (62-9948-42) in Flow

Staining of unstimulated (left) or Anti-Human CD3 and CD28 Functional Grade Purified (Product # 16-0037-81 and Product # 16-0289-81)-stimulated (right) normal human peripheral blood cells with Mouse IgG1 K Isotype Control Super Bright 436 (Product # 62-4714-82) (blue histogram) or Anti-Human CD278 (ICOS) Super Bright 436 (purple histogram). Total viable cells, as determined by 7-AAD Viability Staining Solution (Product # 00-6993-50), were used for analysis.

[View more figures on thermofisher.com](https://www.thermofisher.com)

11 References

Flow Cytometry (9)

eLife

Impaired HA-specific T follicular helper cell and antibody responses to influenza vaccination are linked to inflammation in humans.

"Published figure using CD278 (ICOS) monoclonal antibody (Product # 62-9948-42) in Flow Cytometry"

Authors: Hill DL, Whyte CE, Innocentin S, Lee JL, Dooley J, Wang J, James EA, Lee JC, Kwok WW, Zand MS, Liston A, Carr EJ, Linterman MA

Year
2021

Nature communications

A human CD137×PD-L1 bispecific antibody promotes anti-tumor immunity via context-dependent T cell costimulation and checkpoint blockade.

"62-9948-42 was used in Flow Cytometry to describe a human CD137×PD-L1 bispecific antibody, MCLA-145, identified through functional screening of agonist- and immune checkpoint inhibitor arm combinations."

Authors: Geuijen C, Tacke P, Wang LC, Klooster R, van Loo PF, Zhou J, Mondal A, Liu YB, Kramer A, Condamine T, Volgina A, Hendriks LJA, van der Maaden H, Rovers E, Engels S, Fransen F, den Blanken-Smit R, Zondag-van der Zande V, Basmeh A, Bartelink W, Kulkarni A, Marissen W, Huang CY, Hall L, Harvey S, Kim S, Martinez M, O'Brien S, Moon E, Albelda S, Kanellopoulou C, Stewart S, Nastro H, Bakker ABH, Scherle P, Logtenberg T, Hollis G, de Kruijff J, Huber R, Mayes PA, Throsby M

Year
2021

Species
Human

[View more Flow references on thermofisher.com](#)

T-Cell Activation (2)

Oncoimmunology

Polyfunctional Melan-A-specific tumor-reactive CD8(+) T cells elicited by dacarbazine treatment before peptide-vaccination depends on AKT activation sustained by ICOS.

"Published figure using CD278 (ICOS) monoclonal antibody (Product # 62-9948-42) in T-Cell Activation"

Authors: Franzese O, Palermo B, Di Donna C, Sperduti I, Ferraresi V, Stabile H, Gismondi A, Santoni A, Nisticò P

Year
2016

Oncoimmunology

Tumor-infiltrating plasmacytoid dendritic cells promote immunosuppression by Tr1 cells in human liver tumors.

"Published figure using CD278 (ICOS) monoclonal antibody (Product # 62-9948-42) in T-Cell Activation"

Authors: Pedroza-Gonzalez A, Zhou G, Vargas-Mendez E, Boor PP, Mancham S, Verhoef C, Polak WG, Grünhagen D, Pan Q, Janssen H, Garcia-Romo GS, Biermann K, Tjwa ET, IJzermans JN, Kwekkeboom J, Sprengers D

Year
2015

More applications with references on thermofisher.com

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