

CD278 (ICOS) Monoclonal Antibody (ISA-3), Super Bright™ 645, eBioscience™

Product Details	
Size	100 Tests
Species Reactivity	Human
Host/Isotype	Mouse / IgG1, kappa
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), Super Bright™ 645, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	ISA-3
Conjugate	Super Bright™ 645
Excitation/Emission Max	414/645 nm
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_2717117

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	5 µL (0.5 µg)/test	5 Publications
Neutralization (Neu)	-	1 Publication

Product Specific Information

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 (Product # 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 Product # 13-9948-82 or Product # 12-9948-42 rather than Product # 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 normal human peripheral blood cells. This can be used at 5 µL (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 10⁵ to 10⁸ cells /test.

Super Bright 645 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 645 nm. We recommend using a 660/20 bandpass filter. 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.

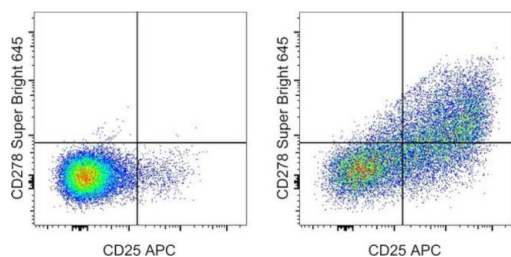
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222) (100 μ L of cell sample + 100 μ L of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency/compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

Excitation: 405 nm; Emission: 645 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™ 645, eBioscience™



CD278 (ICOS) Antibody (64-9948-42) in Flow

Normal human peripheral blood cells were unstimulated (left) or stimulated for 72 hours with PHA-L (Product # 00-4977-93) (right). Cells were then stained with CD25 Monoclonal Antibody, APC (Product # 17-0259-82) and CD278 (ICOS) Monoclonal Antibody, Super Bright 645. Total viable cells were used for analysis.

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

6 References

Flow Cytometry (5)

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 # 64-9948-42) 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

Scientific reports

Changes in expression of PD-L1 on peripheral T cells in patients with melanoma and lung cancer treated with PD-1 inhibitors.

"Published figure using CD278 (ICOS) monoclonal antibody (Product # 64-9948-42) in Flow Cytometry"

Authors: Dart SJ, Cook AM, Millward MJ, McDonnell AM, Chin WL, Hakeem MU, Meniawy TM, Bowyer SE

Year
2021

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

Neutralization (1)

International journal of chronic obstructive pulmonary disease

Inducible Costimulator-C-X-C Motif Chemokine Receptor 3 Signaling is Involved in Chronic Obstructive Pulmonary Disease Pathogenesis.

"Published figure using CD278 (ICOS) monoclonal antibody (Product # 64-9948-42) in Neutralization"

Authors: Li DY, Chen L, Miao SY, Zhou M, Wu JH, Sun SW, Liu LL, Qi C, Xiong XZ

Year
2022

More applications with references on thermofisher.com

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