

# 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
Excitation/Emission Max	413/431 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_2637393

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	5 µL (0.25 µg)/test	10 Publications
Neutralization (Neu)	-	1 Publication
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 (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 stimulated normal

human peripheral blood cells. This can be used at 5  $\mu$ L (0.25  $\mu$ g) per test. A test is defined as the amount ( $\mu$ g) of antibody that will stain a cell sample in a final volume of 100  $\mu$ L. Cell number should be determined empirically but can range from  $10^5$  to  $10^8$  cells/test.

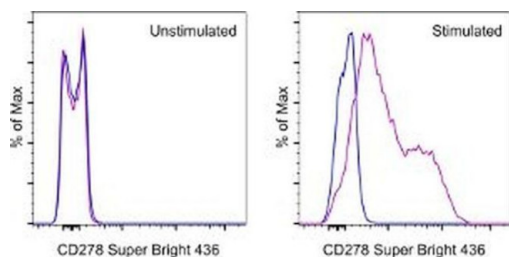
Super Bright 436 can be excited with the violet laser line (405 nm) and emits at 436 nm. We recommend using a 450/50 bandpass filter, or equivalent. Please make sure that your instrument is capable of detecting this fluorochrome.

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)

## Flow Cytometry (10)

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

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 # 62-9948-42) 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 # 62-9948-42) in Neutralization"

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

Year  
2022

## 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

## More applications with references on thermofisher.com

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