

# CD278 (ICOS) Monoclonal Antibody (C398.4A), eBioscience™

## Product Details

Size	100 µg
Species Reactivity	Mouse, Rhesus monkey, Rat
Published Species	Mouse, Human
Host/Isotype	Armenian hamster / IgG
Class	Monoclonal
Type	Antibody
Clone	C398.4A
Conjugate	Unconjugated
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C
RRID	AB_468637

Applications	Tested Dilution	Publications
Immunohistochemistry (IHC)	Assay-Dependent	-
Flow Cytometry (Flow)	0.25 µg/test	18 Publications
Immunoprecipitation (IP)	Assay-Dependent	-
Functional Assay (FN)	Assay-Dependent	2 Publications
Blocking Assay (BLOCK)	-	1 Publication

## Product Specific Information

**Description:** The C398.4A monoclonal antibody reacts with ICOS (Inducible Costimulatory molecule), also known as H4/CRP-1 /AILIM, and cross-reacts with mouse and rat ICOS. ICOS is a T cell specific activation molecule and a third member of the CD28/CTLA-4 family. A dimer of 47-57 kDa, ICOS is expressed on activated T cells, has potent costimulatory activity for T cell activation and proliferation and is required for humoral immune response. ICOS binds to its ligand on activated APC including B cells called B7h/B7RP-1, is thought to play a protective role in inflammatory autoimmune diseases and be involved in the development of Th2 cells. C398.4A is reported to display strong costimulation of proliferation of T cell clones, intermediate costimulation on activated T cells, and weak costimulation on fresh resting T cells. It is a good costimulator of IL-10 production especially from pre-activated cells that express high level of H4/ICOS. The epitope recognized by C398.4A is different from that bound by the ICOSL (i.e., C398.4A does not block binding of ICOSL).

**Applications Reported:** The C398.4A antibody has been reported for use in flow cytometric analysis, immunoprecipitation, and immunohistochemical staining. This has also been reported for in vitro functional assays. This mAb does not work for immunoblotting (WB). (Please use Functional Grade purified C398.4A, cat. 16-9949, in functional assays.).

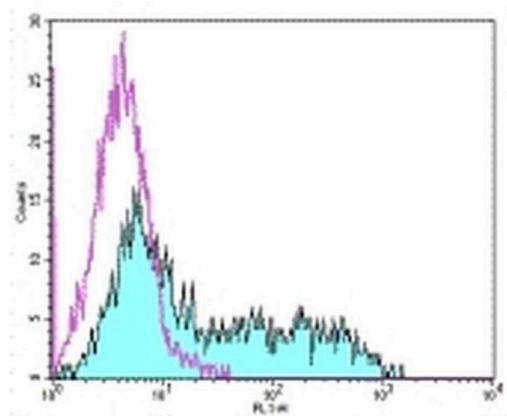
**Applications Tested:** This C398.4A antibody has been tested by flow cytometric analysis of Con A-stimulated mouse splenocytes. This can be used at less than or equal to 0.25 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

**Purity:** Greater than 90%, as determined by SDS-PAGE.

Aggregation: Less than 10%, as determined by HPLC.

Filtration: 0.2 µm post-manufacturing filtered.

**Product Images For CD278 (ICOS) Monoclonal Antibody (C398.4A), eBioscience™**



**CD278 (ICOS) Antibody (14-9949-82) in Flow**  
Staining of Con A-stimulated mouse splenocytes with 0.25 µg of Anti-Mouse/Rat CD278 (ICOS) Purified (filled histogram) or 0.25 µg of Hamster IgG Isotype Control Purified (Product # 14-4888-81) (open histogram) followed by Anti-Armenian Hamster IgG FITC (Product # 11-4111). Total viable cells were used for analysis.

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Flow Cytometry (18)

Theranostics	Year 2023
<b>HSF1 promotes CD69<sup>+</sup> Treg differentiation to inhibit colitis progression.</b>	
"Published figure using CD278 (ICOS) monoclonal antibody (Product # 14-9949-82) in Flow Cytometry"	
Authors: Yu L,Zhou B,Zhu Y,Li L,Zhong Y,Zhu L,Wang H,Chen H,Xu J,Guo T,Feng L,Wang X,Cai Z,Wang J,Jin H	
Frontiers in immunology	Year 2023
<b>TRAF6 controls T cell homeostasis by maintaining the equilibrium of MALT1 scaffolding and protease functions.</b>	
"Published figure using CD278 (ICOS) monoclonal antibody (Product # 14-9949-82) in Flow Cytometry"	
Authors: O'Neill TJ,Gewies A,Seeholzer T,Krappmann D	

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Functional Assay (2)

Journal of immunology (Baltimore, Md. : 1950)	Year 2013
<b>Phosphatidylinositol 3-kinase-independent signaling pathways contribute to ICOS-mediated T cell costimulation in acute graft-versus-host disease in mice.</b>	
"14-9949 was used in Functional assays to investigate ICOS signal transduction pathways involved in graft-versus-host disease, showing that PI3K--independent signaling pathways contribute to ICOS-mediated T cell costimulation."	
Authors: Li J,Heinrichs J,Leconte J,Haarberg K,Semple K,Liu C,Gigoux M,Kornete M,Piccirillo CA,Suh WK,Yu XZ	
Rheumatology (Oxford, England)	Year 2013
<b>Augmented ICOS expression in patients with early diffuse cutaneous systemic sclerosis.</b>	
"14-9949 was used in Functional assays to determine the contribution of ICOS signalling to the pathogenesis of systemic sclerosis during early progressive disease."	
Authors: Hasegawa M,Fujimoto M,Matsushita T,Hamaguchi Y,Takehara K	
	Species Human

More applications with references on thermofisher.com

BLOCK (1)

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