

# CD278 (ICOS) Monoclonal Antibody (7E.17G9), eBioscience™

## Product Details

Size	50 µg
Species Reactivity	Mouse
Published Species	Mouse, Human
Host/Isotype	Rat / IgG2b, kappa
Class	Monoclonal
Type	Antibody
Clone	7E.17G9
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_468632

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	1 µg/test	16 Publications
Functional Assay (FN)	-	1 Publication
Inhibition Assays (IA)	-	1 Publication

## Product Specific Information

**Description:** The 7E.17G9 monoclonal antibody reacts with mouse ICOS (Inducible COStimulatory molecule), a T cell specific molecule and a third member of the CD28/CTLA-4 family. A homodimer 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 and is thought to play a protective role in inflammatory autoimmune diseases. ICOS may be involved in the development of Th2 cells.

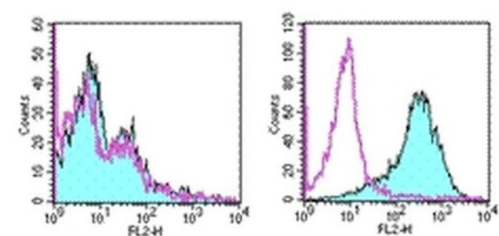
**Applications Reported:** 7E.17G9 has been reported for use in flow cytometric analysis and for inhibition of ligand binding in functional assays (please use Functional Grade purified, cat. 16-9942).

**Applications Tested:** The 7E.17G9 antibody has been tested by flow cytometric analysis of unstimulated and Con A activated (3 day) mouse splenocytes and can be used at less than or equal to 1 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.



**CD278 (ICOS) Antibody (14-9942-81) in Flow**

Staining of unstimulated (left) and 3 day ConA activated (right) BALB/c splenocytes with 0.06 µg of Rat IgG2b Isotype Control Purified (Product # 14-4031-82) (open histogram) or 0.06 µg of Anti-Mouse CD278 (ICOS) Purified (filled histogram) followed by Anti-Rat IgG Biotin (Product # 13-4813-85) and Streptavidin PE (Product # 12-4317-87). Total viable cells were used for analysis.

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Flow Cytometry (16)

<p>Advanced science (Weinheim, Baden-Wurttemberg, Germany)</p> <p><b>Group 2 Innate Lymphoid Cells Protect Mice from Abdominal Aortic Aneurysm Formation via IL5 and Eosinophils.</b></p> <p>"Published figure using CD278 (ICOS) monoclonal antibody (Product # 14-9942-81) in Flow Cytometry"</p> <p>Authors: Zhang Y,Liu T,Deng Z,Fang W,Zhang X,Zhang S,Wang M,Luo S,Meng Z,Liu J,Sukhova GK,Li D,McKenzie ANJ,Libby P,Shi GP,Guo J</p>	<p>Year 2023</p> <p>Species Mouse</p>
<p>Proceedings of the National Academy of Sciences of the United States of America</p> <p><b>Proenkephalin<sup>+</sup> regulatory T cells expanded by ultraviolet B exposure maintain skin homeostasis with a healing function.</b></p> <p>"14-9942-81 was used in Flow Cytometry to report a feature of skin Treg cells expanded by ultraviolet B (UVB) exposure."</p> <p>Authors: Shime H,Odanaka M,Tsuiji M,Matoba T,Imai M,Yasumizu Y,Uraki R,Minohara K,Watanabe M,Bonito AJ, Fukuyama H,Ohkura N,Sakaguchi S,Morita A,Yamazaki S</p>	<p>Year 2020</p> <p>Species Mouse</p>

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Functional Assay (1)

<p>Investigative ophthalmology &amp; visual science</p> <p><b>Differential effects of costimulatory pathway modulation on corneal allograft survival.</b></p> <p>"14-9942 was used in Immunohistochemistry to examine the effect on corneal allograft survival of modulation of programmed death-1 and inducible costimulatory molecule."</p> <p>Authors: Watson MP,George AJ,Larkin DF</p>	<p>Year 2006</p> <p>Species Mouse</p>
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Inhibition Assays (1)

<p>Gastroenterology</p> <p><b>Dysregulated generation of follicular helper T cells in the spleen triggers fatal autoimmune hepatitis in mice.</b></p> <p>"14-9942 was used in Functional assays to identify induction sites, responsible T-cell subsets, and key molecules for induction of autoimmune hepatitis."</p> <p>Authors: Aoki N,Kido M,Iwamoto S,Nishiura H,Maruoka R,Tanaka J,Watanabe T,Tanaka Y,Okazaki T,Chiba T, Watanabe N</p>	<p>Year 2011</p> <p>Species Mouse</p>
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