

Alexa Fluor[®] 594 anti-mouse CD21/CD35 (CR2/CR1) Antibody

Catalog# / Size	123426 / 100 µg
Clone	7E9
Regulatory Status	RUO
Other Names	CR2/CR1
Isotype	Rat IgG2a, κ
Description	CD21, also known as CR2 (complement receptor 2) and C3d receptor, binds C3d and iC3b. It is also a receptor of Epstein-Barr virus. CD35, also known as CR1, binds C3b, iC3b, C4b, and iC4b. CD21/CD35 is primarily expressed on B lymphocytes, mast cells, follicular dendritic cells, macrophages, and activated granulocytes. CD21/CD35 forms part of the B-cell antigen receptor complex with CD19 and CD81 and is involved in signal transduction.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	CD35/CFA
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor [®] 594 under optimal conditions.
Concentration	0.5 mg/mL
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	IHC-F - Quality tested 3D IHC - Verified
Recommended Usage	<p>Each lot of this antibody is quality control tested by immunohistochemical staining on frozen tissue sections. For immunohistochemistry, a concentration range of 2.5 - 5.0 µg/mL is suggested. For 3D immunohistochemistry on formalin-fixed tissues, a concentration of 5.0 µg/mL is suggested. It is recommended that the reagent be titrated for optimal performance for each application.</p> <p>* Alexa Fluor[®] 594 has an excitation maximum of 590 nm, and a maximum emission of 617 nm.</p> <p>Alexa Fluor[®] and Pacific Blue™ are trademarks of Life Technologies Corporation.</p> <p>View full statement regarding label licenses</p>
Application References	<ol style="list-style-type: none">1. Boackle S, <i>et al.</i> 2001 <i>Immunity</i> 15:775.2. de Andres B, <i>et al.</i> 2012. <i>J. Immunol.</i> 189:2300. PubMed3. Chiu YK, <i>et al.</i> 2014. <i>J Immunol.</i> 193:2207. PubMed4. Koenig PA, <i>et al.</i> 2014. <i>J Biol Chem.</i> 289:34490. PubMed5. Radtke AJ, <i>et al.</i> 2020. <i>Proc Natl Acad Sci U S A.</i> 117:33455-65. (SB) PubMed6. Radtke AJ, <i>et al.</i> 2022. <i>Nat Protoc.</i> 17:378-401. (SB) PubMed
(PubMed link indicates BioLegend citation)	
Product Citations	<ol style="list-style-type: none">1. Nakata T, <i>et al.</i> 2020. <i>Proc Natl Acad Sci U S A.</i> 117:28930. PubMed2. Hofmann J, <i>et al.</i> 2021. <i>Front Immunol.</i> 11:599495. PubMed3. Bunse M, <i>et al.</i> 2021. <i>Nat Commun.</i> 0.666666667. PubMed
RRID	AB_2632698 (BioLegend Cat. No. 123426)

Antigen Details

Structure	145 kD/190 kD type I transmembrane glycoprotein
Distribution	B cells, follicular dendritic cells
Function	Signal transduction
Ligand/Receptor	Associated with CD19/CD81. CD21 binds C3d, iC3b, and EBV; CD35 binds C3b, iC3b, C4b, and iC4b.
Cell Type	B cells, Dendritic cells
Biology Area	Cell Biology, Costimulatory Molecules, Immunology, Neuroinflammation, Neuroscience
Molecular Family	Adhesion Molecules, CD Molecules
Antigen References	<ol style="list-style-type: none">1. Kozono Y, <i>et al.</i> 1998. <i>J. Immunol.</i> 160:1562.2. Shimizu I, <i>et al.</i> 2007. <i>Blood</i> 109:1773.3. Roozendaal R and MC. Carroll. 2007. <i>Immunol. Rev.</i> 219:157.
Gene ID	12902 12946

Related Protocols

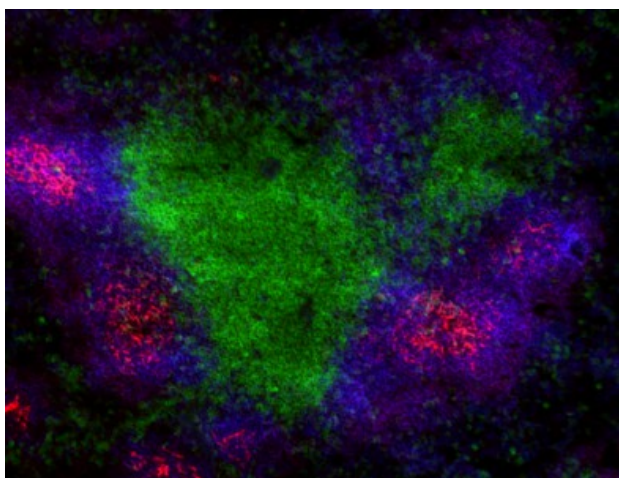
[Immunohistochemistry Protocol for Frozen Sections](#)

[Ce3D™ Tissue Clearing Kit](#)

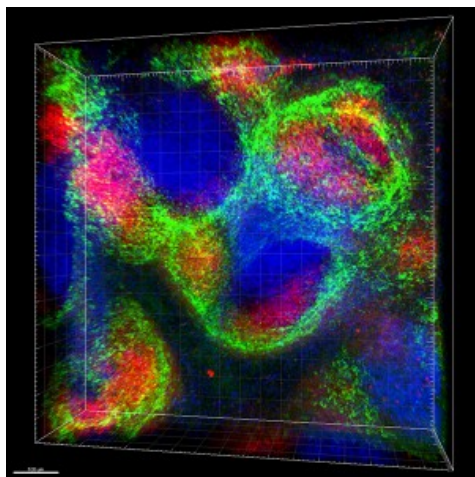
Other Formats

PE/Cyanine7 anti-mouse CD21/CD35 (CR2/CR1), APC/Cyanine7 anti-mouse CD21/CD35 (CR2/CR1), Biotin anti-mouse CD21/CD35 (CR2/CR1), FITC anti-mouse CD21/CD35 (CR2/CR1), PE anti-mouse CD21/CD35 (CR2/CR1), APC anti-mouse CD21/CD35 (CR2/CR1), Pacific Blue™ anti-mouse CD21/CD35 (CR2/CR1), PerCP/Cyanine5.5 anti-mouse CD21/CD35 (CR2/CR1), Brilliant Violet 421™ anti-mouse CD21/CD35 (CR2/CR1), Alexa Fluor® 647 anti-mouse CD21/CD35 (CR2/CR1), Alexa Fluor® 594 anti-mouse CD21/CD35 (CR2/CR1), TotalSeq™-A0107 anti-mouse CD21/CD35 (CR2/CR1), Alexa Fluor® 700 anti-mouse CD21/CD35 (CR2/CR1), APC/Fire™ 750 anti-mouse CD21/CD35 (CR2/CR1), TotalSeq™-C0107 anti-mouse CD21/CD35 (CR2/CR1), Brilliant Violet 711™ anti-mouse CD21/CD35 (CR2/CR1), PE/Dazzle™ 594 anti-mouse CD21/CD35 (CR2/CR1), Brilliant Violet 510™ anti-mouse CD21/CD35 (CR2/CR1), Ultra-LEAF™ Purified anti-mouse CD21/CD35 (CR2/CR1)

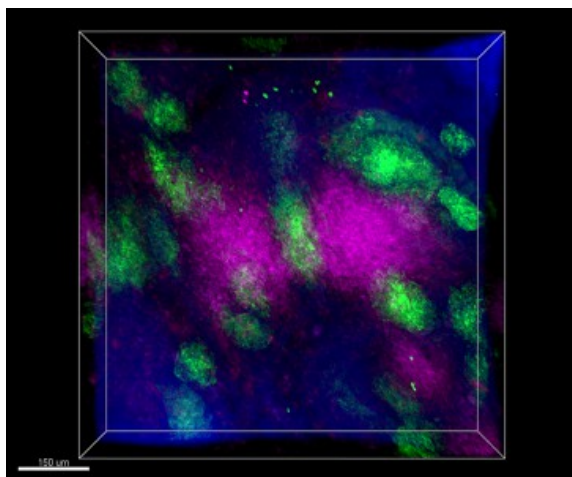
Product Data



C57BL/6 mouse frozen spleen section was fixed with 4% paraformaldehyde (PFA) for ten minutes at room temperature and blocked with 5% FBS plus 5% rat serum for one hour at room temperature. Then the section was stained with 2.5 µg/mL of CD21/CD35 (CR1/CR2) (clone 7E9) Alexa Fluor® 594 (red), 5 µg/mL of CD3 (clone 17A2) Alexa Fluor® 647 (green), and 5 µg/mL of B220 (clone RA3-6B2) Alexa Fluor® 488 (blue) at 4°C overnight. The image was captured with a 10X objective.



Formalin-fixed, 400 micron-thick mouse spleen section was blocked, permeabilized and stained overnight with CD21/35 (CR2/CR1) (clone 7E9) Alexa Fluor® 594 (red), CD169 (Siglec-1) (clone 3D6.112) Alexa Fluor® 488 (green), and CD3 (clone 17A2) Alexa Fluor® 647 (blue) all at 5 µg/mL, optically cleared, then analyzed at 235 µm imaging depth on a confocal microscope. Scale bar: 100 µm. [Watch the video.](#)



Paraformaldehyde-fixed (4%), 500 µm-thick mouse spleen section was processed according to the Ce3DTM Tissue Clearing Kit protocol (cat. no. 427701). The section was costained with anti-mouse CD21/CD35 (CR2/CR1) Antibody (clone 7E9) Alexa Fluor® 594 at 5 µg/mL (green), and anti-mouse CD8a Antibody (clone C8/144B) Alexa Fluor® 647 at 5 µg/mL (magenta) and counterstained with DAPI (blue). The section was then optically cleared and mounted in a sample chamber. The image was captured with a 10X objective using Zeiss 780 confocal microscope and processed by Imaris image analysis software. [Watch the video.](#)

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