

## Brilliant Violet 650™ anti-mouse CD93 (AA4.1, early B lineage) Antibody

<b>Catalog# / Size</b>	136517 / 50 µg
<b>Clone</b>	AA4.1
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	AA4.1, C1qRp, Early B lineage antigen
<b>Isotype</b>	Rat IgG2b, κ
<b>Description</b>	CD93 is a 130-140kD C-type lectin like type I transmembrane protein, also known as complement component 1, q subcomponent (C1qR1), C1qRp collectin receptor (C1qRp), or AA4 antigen. It is a receptor expressed on immature B lymphocytes, hematopoietic progenitors and stem cells in adult bone marrow, fetal liver, embryonic yolk sac. CD93 expression level on splenic immature/transitional B cells is much lower than in bone marrow. It is reinduced during plasma cell differentiation and plays an important role in maintaining plasma cells in bone marrow niches. Immature dendritic cells express CD93 and down-regulate this molecule upon maturation, suggesting a role in uptake of particles by DC. It is also expressed on monocytes, macrophages, and endothelial cells. Macrophages from CD93 (-/-) mice had a significant phagocytic defect in the clearance of apoptotic cells <i>in vivo</i> , indicating CD93 may contribute to the <i>in vivo</i> clearance of dying cells. Binding of CD93 to C1q remains controversial.

### Product Details

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<b>Verified Reactivity</b>	Mouse
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Rat
<b>Immunogen</b>	Pre-B lymphoma 70Z/3
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 650™ under optimal conditions.
<b>Concentration</b>	0.2 mg/mL
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">FC - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is ≤ 0.25 µg per million cells in 100 µL volume. It is recommended that the reagent be titrated for optimal performance for each application.

Brilliant Violet 650™ excites at 405 nm and emits at 645 nm. The bandpass filter 660/20 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel. Refer to your instrument manual or manufacturer for support. Brilliant Violet 650™ is a trademark of Sirigen Group Ltd.

[Learn more about Brilliant Violet™.](#)

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prohibited. This product is covered by U.S. Patent(s), pending patent applications and foreign equivalents.

**Excitation Laser** Violet Laser (405 nm)

**Application References**

1. McKearn JP, *et al.* 1984. *J. Immunol.* 132:332
2. Hanihara-Tatsuzaawa F, *et al.* 2014. *J Biol Chem.* 289:30925. [PubMed](#)

(PubMed link indicates BioLegend citation)

**RRID** AB\_3698911 (BioLegend Cat. No. 136517)

## Antigen Details

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<b>Structure</b>	A 130-140 kD C-type lectin like type I transmembrane protein, also known as complement component 1, q subcomponent (C1qR1), C1qRp collectin receptor (C1qRp), or AA4 antigen.
<b>Distribution</b>	Expressed during immature B lymphocytes, hematopoietic progenitors and stem cells in bone marrow, immature dendritic cells, monocytes, macrophages, and endothelial cells.
<b>Function</b>	CD93 plays an important role in maintaining of plasma cells in bone marrow niches. It may play a role in uptake of particles by DC and the <i>in vivo</i> clearance of dying cells by macrophages.
<b>Cell Type</b>	B cells, Dendritic cells, Endothelial cells, Hematopoietic stem and progenitors, Macrophages, Monocytes
<b>Biology Area</b>	Cell Biology, Immunology, Innate Immunity, Neuroinflammation, Neuroscience
<b>Molecular Family</b>	CD Molecules
<b>Antigen References</b>	<ol style="list-style-type: none"><li>1. Steinberger P, <i>et al.</i> 2002. <i>J. Leukoc. Biol.</i> 71:133</li><li>2. Chevrier S, <i>et al.</i> 2009. <i>Proc. Nat. Acad. Sci. U. S. A.</i> 106:3895</li><li>3. Norsworthy PJ, <i>et al.</i> 2004. <i>J. Immunol.</i> 172:3406</li><li>4. Li YS, <i>et al.</i> 1996. <i>Immunity</i> 5:527</li><li>5. Szilvassy SJ, <i>et al.</i> 1993. <i>Blood</i> 81:2310</li></ol>
<b>Gene ID</b>	<a href="#">17064</a>

## Related Protocols

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- [Cell Surface Flow Cytometry Staining Protocol](#)

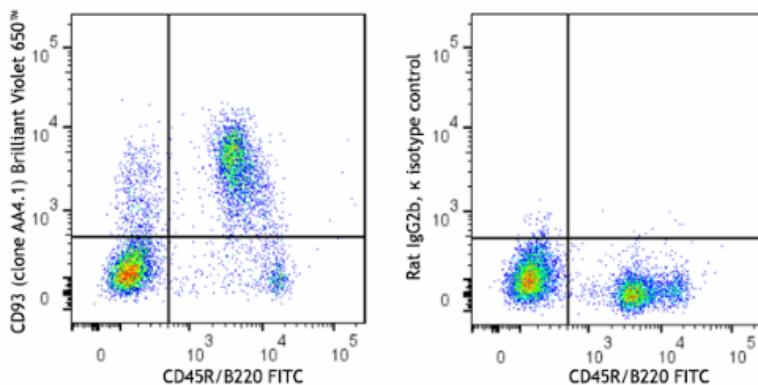
## Other Formats

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FITC anti-mouse CD93 (AA4.1, early B lineage), PE anti-mouse CD93 (AA4.1, early B lineage), PE/Cyanine7 anti-mouse CD93 (AA4.1, early B lineage), APC anti-mouse CD93 (AA4.1, early B lineage), PerCP/Cyanine5.5 anti-mouse CD93 (AA4.1, early B lineage), TotalSeq™-A0113 anti-mouse CD93 (AA4.1, early B lineage), TotalSeq™-C0113 anti-mouse CD93 (AA4.1, early B lineage), Brilliant Violet 650™ anti-mouse CD93 (AA4.1, early B lineage) Antibody

## Product Data

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C57BL/6 bone marrow cells were stained with anti-mouse CD45R/B220 (clone RA3-6B2) FITC and anti-mouse CD93 (AA4.1, early B lineage) (clone AA4.1) Brilliant Violet 650™ (left) or rat IgG2b, κ Brilliant Violet 650™ isotype control (right).

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