

## Spark YG™ 593 anti-mouse/human CD44 Antibody

<b>Catalog# / Size</b>	103077 / 25 µg 103078 / 100 µg
<b>Clone</b>	IM7
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	Hermes, Pgp-1, H-CAM, HUTCH-1, ECMR III, gp85, Ly-24
<b>Isotype</b>	Rat IgG2b, κ
<b>Description</b>	CD44 is a 80-95 kD glycoprotein also known as Hermes, Pgp1, H-CAM, or HUTCH. It is expressed on all leukocytes, endothelial cells, hepatocytes, and mesenchymal cells. As B and T cells become activated or progress to the memory stage, CD44 expression increases from low or mid levels to high levels. Thus, CD44 has been reported to be a valuable marker for memory cell subsets. High CD44 expression on Treg cells has been associated with potent suppressive function via high production of IL-10. CD44 is an adhesion molecule involved in leukocyte attachment to and rolling on endothelial cells, homing to peripheral lymphoid organs and to the sites of inflammation, and leukocyte aggregation.

### Product Details

<b>Verified Reactivity</b>	Mouse, Human
<b>Reported Reactivity</b>	Chimpanzee, Baboon, Cynomolgus, Rhesus, Squirrel Monkey, Horse, Cow, Pig, Dog, Cat
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Rat
<b>Immunogen</b>	Dexamethasone-induced myeloid leukemia M1 cells
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
<b>Concentration</b>	0.5 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.  * Spark YG™ 593 has a maximum excitation of 573 nm and a maximum emission of 593 nm.
<b>Excitation Laser</b>	Green Laser (532 nm)/Yellow-Green Laser (561 nm)
<b>Application Notes</b>	Clone IM7 has been reported to recognize an epitope common to alloantigens and all isoforms of CD44 <sup>17,18</sup> that is located between amino acids 145 and 186 <sup>20</sup> . This clone has been verified for immunocytochemistry (ICC) and frozen immunohistochemistry (IHC-F). Additional reported applications (for the relevant formats) include: immunohistochemistry of acetone-fixed frozen sections and formalin-fixed paraffin-embedded sections <sup>6,7</sup> , complement-mediated cytotoxicity <sup>1</sup> , immunoprecipitation <sup>1,3</sup> , <i>in vivo</i> inhibition of DTH <sup>4,5</sup> , and spatial biology (IBEX) <sup>23,24</sup> . The Ultra-LEAF™ purified antibody (Endotoxin < 0.01 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 103046, 103065 - 103069).  Cross-reactivity to ferret has been reported by a collaborator, but not verified in house.
<b>Application References</b>	1. Trowbridge IS, <i>et al.</i> 1982. <i>Immunogenetics</i> 15:299. (ICFC, IP, CMCD) 2. Katoh S, <i>et al.</i> 1994. <i>J. Immunol.</i> 153:3440. (ELISA) 3. Budd RC, <i>et al.</i> 1987. <i>J. Immunol.</i> 138:3120. (IP) 4. Camp RL, <i>et al.</i> 1993. <i>J. Exp. Med.</i> 178:497. (Block)
<b>(PubMed link indicates BioLegend citation)</b>	

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**RRID** AB\_2892266 (BioLegend Cat. No. 103077)  
 AB\_2892266 (BioLegend Cat. No. 103078)

## Antigen Details

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<b>Structure</b>	Variable splicing of CD44 gene generates many CD44 isoforms, 80-95 kD
<b>Distribution</b>	All leukocytes, epithelial cells, endothelial cells, hepatocytes, mesenchymal cells
<b>Function</b>	Leukocyte attachment and rolling on endothelial cells, stromal cells and ECM
<b>Ligand/Receptor</b>	Hyaluronan, MIP-1 $\beta$ , fibronectin, collagen
<b>Cell Type</b>	B cells, Endothelial cells, Epithelial cells, Leukocytes, Mesenchymal cells, Mesenchymal Stem Cells, Tregs
<b>Biology Area</b>	Cell Adhesion, Cell Biology, Immunology, Stem Cells
<b>Molecular Family</b>	Adhesion Molecules, CD Molecules
<b>Antigen References</b>	<ol style="list-style-type: none"> <li>1. Barclay AN, <i>et al.</i> 1997. The Leukocyte Antigen FactsBook Academic Press.</li> <li>2. Haynes BF, <i>et al.</i> 1991. <i>Cancer Cells</i> 3:347.</li> <li>3. Goldstein LA, <i>et al.</i> 1989. <i>Cell</i> 56:1063.</li> <li>4. Mikecz K, <i>et al.</i> 1995. <i>Nat. Med.</i> 1:558.</li> <li>5. Hegde V, <i>et al.</i> 2008. <i>J. Leukocyte Biol.</i> 84:134.</li> <li>6. Liu T, <i>et al.</i> 2009. <i>Biol. Direct</i> 4:40.</li> </ol>
<b>Gene ID</b>	<a href="#">12505</a> <a href="#">960</a>

## Related Protocols

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[Cell Surface Flow Cytometry Staining Protocol](#)

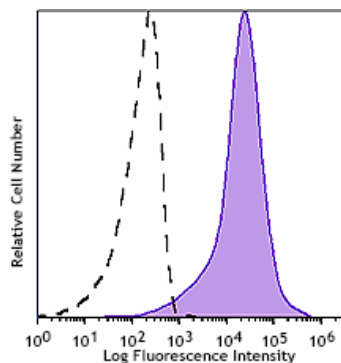
## Other Formats

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APC anti-mouse/human CD44, Biotin anti-mouse/human CD44, FITC anti-mouse/human CD44, PE/Cyanine5 anti-mouse/human CD44, Purified anti-mouse/human CD44, Brilliant Violet 605™ anti-mouse/human CD44, PE anti-mouse/human CD44, Alexa Fluor® 488 anti-mouse/human CD44, Alexa Fluor® 647 anti-mouse/human CD44, Pacific Blue™ anti-mouse/human CD44, Alexa Fluor® 700 anti-mouse/human CD44, PE/Cyanine7 anti-mouse/human CD44, APC/Cyanine7 anti-mouse/human CD44, PerCP/Cyanine5.5 anti-mouse/human CD44, PerCP anti-mouse/human CD44, Brilliant Violet 421™ anti-mouse/human CD44, Brilliant Violet 570™ anti-mouse/human CD44, Brilliant Violet 785™ anti-mouse/human CD44, Brilliant Violet 510™ anti-mouse/human CD44, Ultra-LEAF™ Purified anti-mouse/human CD44, Brilliant Violet 650™ anti-mouse/human CD44, Purified anti-mouse/human CD44 (Maxpar® Ready), Alexa Fluor® 594 anti-mouse/human CD44, PE/Dazzle™ 594 anti-mouse/human CD44, Brilliant Violet 711™ anti-mouse/human CD44, APC/Fire™ 750 anti-mouse/human CD44, TotalSeq™-A0073 anti-mouse/human CD44, TotalSeq™-C0073 anti-mouse/human CD44, TotalSeq™-B0073 anti-mouse/human CD44, Spark YG™ 570 anti-mouse/human CD44, Spark YG™ 593

## Product Data

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C57BL/6 splenocytes were stained with anti-mouse/human CD44 (clone IM7) Spark YG™ 593 (filled histogram) or unstained control (open histogram).

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