

Ultra-LEAF™ Purified anti-mouse/human CD44 Antibody

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| Catalog# / Size | 103065 / 100 µg 103046 / 1 mg 103066 / 5 mg 103067 / 25 mg 103068 / 50 mg 103069 / 100 mg |
| Clone | IM7 |
| Regulatory Status | RUO |
| Other Names | Hermes, Pgp-1, H-CAM, HUTCH-1, ECMR III, gp85, Ly-24 |
| Isotype | Rat IgG2b, κ |
| Description | 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

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| Verified Reactivity | Mouse, Human |
| Reported Reactivity | Chimpanzee, Baboon, Cynomolgus, Rhesus, Squirrel Monkey, Horse, Cow, Pig, Dog, Cat |
| Antibody Type | Monoclonal |
| Host Species | Rat |
| Immunogen | Dexamethasone-induced myeloid leukemia M1 cells |
| Formulation | 0.2 µm filtered in phosphate-buffered solution, pH 7.2, containing no preservative. Endotoxin level is <0.01 EU/µg of the protein (<0.001 ng/µg of the protein) as determined by the LAL test. |
| Preparation | The Ultra-LEAF™ (Low Endotoxin, Azide-Free) antibody was purified by affinity chromatography. |
| Concentration | The antibody is bottled at the concentration indicated on the vial, typically between 2 mg/mL and 3 mg/mL. Older lots may have also been bottled at 1 mg/mL. To obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools. |
| Storage & Handling | The antibody solution should be stored undiluted between 2°C and 8°C. This Ultra-LEAF™ solution contains no preservative; handle under aseptic conditions. |
| Application | FC - Quality tested CyTOF® - Verified ELISA, IHC, IP, CMCD, Stim - Reported in the literature, not verified in house |
| Recommended Usage | Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is ≤0.25 µg per million cells in 100 µl volume or 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application. |
| Application Notes | Clone IM7 has been reported to recognize an epitope common to alloantigens and all isoforms of CD44 ^{17,18} that is located between amino acids 145 and 186 ²⁰ . 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 ^{6,7} , complement-mediated cytotoxicity ¹ , immunoprecipitation ^{1,3} , <i>in vivo</i> inhibition of DTH ^{4,5} , and spatial biology (IBEX) ^{23,24} . 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.

Application References

(PubMed link indicates BioLegend citation)

1. Trowbridge IS, *et al.* 1982. *Immunogenetics* 15:299. (ICFC, IP, CMCD)
2. Katoh S, *et al.* 1994. *J. Immunol.* 153:3440. (ELISA)
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4. Camp RL, *et al.* 1993. *J. Exp. Med.* 178:497. (Block)
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19. Hirokawa Y, *et al.* 2014. *Am J Physiol Gastrointest Liver Physiol.* 306:547. [PubMed](#)
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23. Radtke AJ, *et al.* 2020. *Proc Natl Acad Sci U S A.* 117:33455-65. (SB) [PubMed](#)
24. Radtke AJ, *et al.* 2022. *Nat Protoc.* 17:378-401. (SB) [PubMed](#)

Product Citations

1. Heino S, *et al.* 2021. *Sci Adv.* 7:eabj0512. [PubMed](#)

RRID

AB_2832294 (BioLegend Cat. No. 103065)
AB_2561491 (BioLegend Cat. No. 103046)
AB_2832295 (BioLegend Cat. No. 103066)
AB_2832296 (BioLegend Cat. No. 103067)
AB_2832297 (BioLegend Cat. No. 103068)
AB_2832298 (BioLegend Cat. No. 103069)

Antigen Details

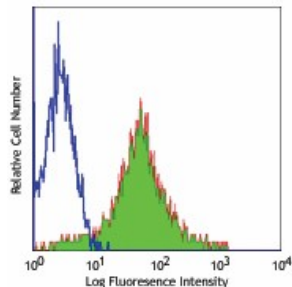
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|---------------------------|---|
| Structure | Variable splicing of CD44 gene generates many CD44 isoforms, 80-95 kD |
| Distribution | All leukocytes, epithelial cells, endothelial cells, hepatocytes, mesenchymal cells |
| Function | Leukocyte attachment and rolling on endothelial cells, stromal cells and ECM |
| Ligand/Receptor | Hyaluronan, MIP-1 β , fibronectin, collagen |
| Cell Type | B cells, Endothelial cells, Epithelial cells, Leukocytes, Mesenchymal cells, Mesenchymal Stem Cells, Tregs |
| Biology Area | Cell Adhesion, Cell Biology, Immunology, Stem Cells |
| Molecular Family | Adhesion Molecules, CD Molecules |
| Antigen References | <ol style="list-style-type: none">1. Barclay AN, <i>et al.</i> 1997. <i>The Leukocyte Antigen FactsBook</i> Academic Press.2. Haynes BF, <i>et al.</i> 1991. <i>Cancer Cells</i> 3:347.3. Goldstein LA, <i>et al.</i> 1989. <i>Cell</i> 56:1063.4. Mikecz K, <i>et al.</i> 1995. <i>Nat. Med.</i> 1:558.5. Hegde V, <i>et al.</i> 2008. <i>J. Leukocyte Biol.</i> 84:134.6. Liu T, <i>et al.</i> 2009. <i>Biol. Direct</i> 4:40. |
| Gene ID | 12505 960 |

Other Formats

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 anti-mouse/human CD44, TotalSeq™-D0073 anti-mouse/human CD44

Product Data



C57BL/6 mouse splenocytes stained with Ultra-LEAF™ purified CD44 (clone IM7), followed by anti-rat IgG FITC.

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