

FITC anti-mouse/human CD44 Antibody

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|--------------------------|---|
| Catalog# / Size | 103021 / 25 tests 103005 / 50 µg 103006 / 500 µg 103022 / 100 tests |
| 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 | test sizes: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA). µg sizes: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide. |
| Preparation | The antibody was purified by affinity chromatography, and conjugated with FITC under optimal conditions. |
| Concentration | test size: lot-specific; µg size: 0.5 mg/ml |
| Storage & Handling | The CD44 antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze. |
| Application | FC - Quality tested |
| Recommended Usage | Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . For flow cytometric staining using the µg size, 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. For flow cytometric staining using the test sizes, the suggested use of this reagent is 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood. |
| Excitation Laser | Blue Laser (488 nm) |
| 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)

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RRID

AB_493684 (BioLegend Cat. No. 103021)
 AB_312956 (BioLegend Cat. No. 103005)
 AB_312957 (BioLegend Cat. No. 103006)

Antigen Details

| | |
|---------------------------|---|
| 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. The Leukocyte Antigen FactsBook 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 |

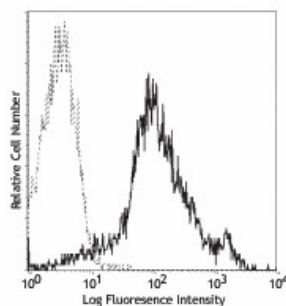
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

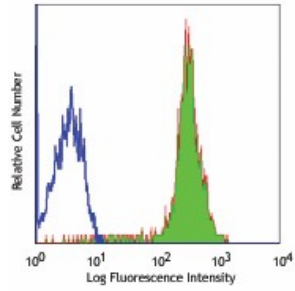
APC anti-mouse/human CD44, Biotin anti-mouse/human CD44, FITC anti-mouse/human CD44, PE/Cyanine5 anti-mouse/human CD44, Purified anti-mouse/human CD44, Brilliant Violet 605™ anti-mouse/human CD44, PE anti-mouse/human CD44, Alexa Fluor® 488 anti-mouse/human CD44, Alexa Fluor® 647 anti-mouse/human CD44, 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 splenocytes stained with IM7 FITC

Human peripheral blood lymphocytes
stained with IM7 FITC



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