

Brilliant Violet 421™ anti-mouse/human CD44 Antibody

Catalog# / Size	103039 / 125 µL 103040 / 50 µg
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

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	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).
Preparation	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 421™ under optimal conditions.
Concentration	µg sizes: 0.2 mg/mL test sizes: lot-specific (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, 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. For flow cytometric staining using the test size, 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. It is recommended that the reagent be titrated for optimal performance for each application. Brilliant Violet 421™ excites at 405 nm and emits at 421 nm. The standard bandpass filter 450/50 nm is recommended for detection. Brilliant Violet 421™ is a trademark of Sirigen Group Ltd. Learn more about Brilliant Violet™. This product is subject to proprietary rights of Sirigen Inc. and is made and sold under license from Sirigen Inc. The purchase of this product conveys to the buyer a non-transferable right to use the purchased product for research purposes only. This product may not be resold or incorporated in any manner into another product for resale. Any use for therapeutics or diagnostics is strictly prohibited. This product is covered by U.S. Patent(s), pending patent applications and foreign equivalents.
Excitation Laser	Violet Laser (405 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 186²⁰. 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 cytotoxicity¹, immunoprecipitation^{1,3}, *in vivo* 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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Product Citations

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RRID

AB_10895752 (BioLegend Cat. No. 103039)
AB_2616903 (BioLegend Cat. No. 103040)

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-1β, 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

1. Barclay AN, *et al.* 1997. The Leukocyte Antigen FactsBook Academic Press.
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Gene ID

[12505](#)

[960](#)

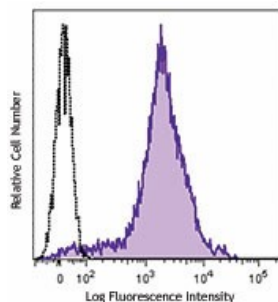
Related Protocols

[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 mouse splenocytes were stained with CD44 (clone IM7) Brilliant Violet 421™ (filled histogram) or rat IgG2b, κ Brilliant Violet 421™ isotype control (open histogram).

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