CD44 Monoclonal Antibody (IM7), eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Human, Mouse
Published Species	Fruit fly, Non-human primate, Mouse, Human, Horse
Host/Isotype	Rat / IgG2b, kappa
Class	Monoclonal
Type	Antibody
Clone	IM7
Conjugate	Unconjugated
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C
RRID	AB_467246

Applications	Tested Dilution	Publications
Western Blot (WB)	Assay-Dependent	5 Publications
Immunohistochemistry (IHC)	Assay-Dependent	20 Publications
Immunohistochemistry (Paraffin) (IHC (P))	-	1 Publication
Immunohistochemistry (Frozen) (IHC (F))	-	1 Publication
Immunocytochemistry (ICC/IF)	1:500	17 Publications
Flow Cytometry (Flow)	0.125 µg/test	325 Publications
ELISA (ELISA)	-	1 Publication
Immunoprecipitation (IP)	Assay-Dependent	-
Neutralization (Neu)	-	1 Publication
Functional Assay (FN)	Assay-Dependent	3 Publications
Miscellaneous PubMed (Misc)	-	4 Publications

Product Specific Information

Description: The IM7 monoclonal antibody reacts with all isoforms of mouse CD44 (Pgp-1). CD44 is expressed by hematopoietic and non-hematopoietic cells. Bone marrow myeloid cells and memory T cells highly express this antigen and peripheral B and T cells can upregulate the expression of CD44. CD44 functions as an adhesion molecule through its binding to hyaluronate, an extracellular matrix component.

Applications Reported: The IM7 antibody has been reported for use in flow cytometric analysis, immunoprecipitation, immunohistochemical staining and immunoblotting (non-reducing conditions). It has also been reported in complement-dependent cytotoxicity. (Please use Functional Grade purified IM7, cat. 16-0441, in functional assays.).

Applications Tested: The IM7 antibody has been tested by flow cytometric analysis of mouse bone marrow cells and

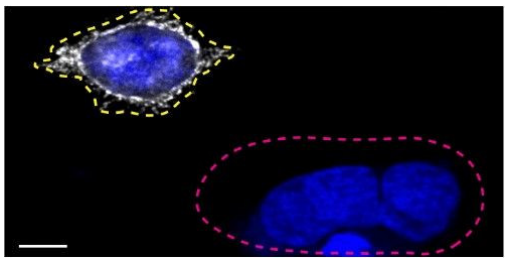
splenocytes. This can be used at less than or equal to 0.125 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10^5 to 10^8 cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Purity: Greater than 90%, as determined by SDS-PAGE.

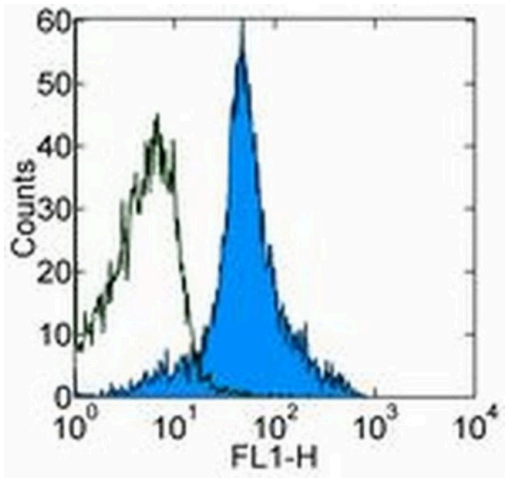
Aggregation: Less than 10%, as determined by HPLC.

Filtration: 0.2 µm post-manufacturing filtered.

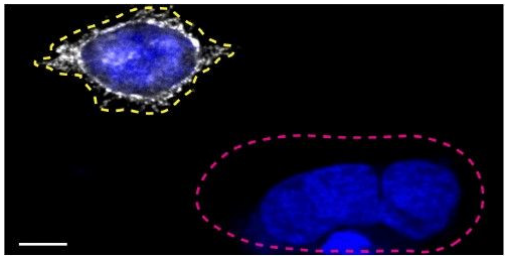
Product Images For CD44 Monoclonal Antibody (IM7), eBioscience™



CD44 Antibody (14-0441-82)
Antibody specificity was demonstrated by CRISPR-Cas9 mediated knockout of target protein. Loss of signal in immunofluorescence was observed for target protein in CD44 knockout (KO) cell line using Anti-CD44 monoclonal antibody (Product # 14-0441-82). Parental cells were transfected with GFP and CD44 KO with mCherry. Data courtesy of YCharOS Inc., an open science company with the mission of characterizing commercially available antibodies using knockout validation. {KO}



CD44 Antibody (14-0441-82) in Flow
Staining of C57Bl/6 splenocytes with 0.06 µg of Rat IgG2b Isotype Control Purified (Product # 14-4031-82) (open histogram) or 0.06 µg of Anti-Human /Mouse CD44 Purified (filled histogram) followed by Anti-Rat IgG FITC (Product # 11-4811-85). Total viable cells were used for analysis.



CD44 Antibody (14-0441-82) in ICC/IF
Immunofluorescence of CD44 was performed using HAP1 wild-type and CD44 KO cells that were transfected with a green or a far red fluorescent dye, respectively. Post-transfection, WT and KO cells were mixed and plated to a 1:1 ratio on coverslips as a mosaic and incubated for 24 hrs. Cells were fixed in 4% PFA (in PBS) for 15 min; cells were permeabilized with 0.1% Triton X-100 for 10 min at RT and blocked with PBS with 5% BSA, 5% goat serum, and 0.01% Triton X-100 for 30 min. Cells were stained with the CD44 monoclonal antibody (Product # 14-0441-82) at a 1:500 dilution overnight at 4°C. Secondary antibody incubation was performed using 0.5 µg/mL of Goat anti-Mouse IgG (H+L) Highly Cross-Adsorbed Secondary Antibody, Alexa Fluor 555 antibody (Product # A21424) together with DAPI. Imaging was performed with a 40X oil objective and analysis was performed using Image J. Cell image represents a single focal plane; WT and KO cells are outlined with a yellow (WT) or magenta (KO) dashed line. Data courtesy of YCharOS Inc., an open science company with the mission of characterizing commercially available antibodies using knockout validation.

View more figures on thermofisher.com

378 References

Western Blot (5)

Current biology : CB

Year
2021

Species
Mouse

The CD44/COL17A1 pathway promotes the formation of multilayered, transformed epithelia.

"14-0441-82 was used in Western Blotting to suggest that CD44 and COL17A1 are crucial regulators for the clonal expansion of transformed cells within multilayered epithelia, thus being potential targets for early diagnosis and preventive treatment for precancerous lesions."

Authors: Kozawa K,Sekai M,Ohba K,Ito S,Sako H,Maruyama T,Kakeno M,Shirai T,Kuromiya K,Kamasaki T,Kohashi K,Tanaka S,Ishikawa S,Sato N,Asano S,Suzuki H,Tanimura N,Mukai Y,Gotoh N,Tanino M,Tanaka S,Natsuga K,Soga T,Nakamura T,Yabuta Y,Saitou M,Ito T,Matsuura K,Tsunoda M,Kikumori T,Iida T,Mizutani Y,Miyai Y,Kaibuchi K,Enomoto A,Fujita Y

PloS one

Year
2016

Multi-lineage differentiation of human umbilical cord Wharton's Jelly Mesenchymal Stromal Cells mediates changes in the expression profile of stemness markers.

"Published figure using CD44 monoclonal antibody (Product # 14-0441-82) in Western Blot"

Authors: Ali H,Al-Yatama MK,Abu-Farha M,Behbehani K,Al Madhoun A

View more WB references on thermofisher.com

Immunohistochemistry (20)

International journal of molecular sciences

Year
2022

CXCR4, CXCR5 and CD44 May Be Involved in Homing of Lymphoma Cells into the Eye in a Patient Derived Xenograft Homing Mouse Model for Primary Vitreoretinal Lymphoma.

"Published figure using CD44 monoclonal antibody (Product # 14-0441-82) in Immunohistochemistry"

Authors: Babst N,Isbell LK,Rommel F,Tura A,Ranjbar M,Grisanti S,Tschuch C,Schueler J,Doostkam S,Reinacher PC,Duyster J,Kakkassery V,von Bubnoff N

International journal of molecular sciences

Year
2022

High-Contrast Stimulation Potentiates the Neurotrophic Properties of Müller Cells and Suppresses Their Pro-Inflammatory Phenotype.

"Published figure using CD44 monoclonal antibody (Product # 14-0441-82) in Immunohistochemistry"

Authors: Zloh M,Kutilek P,Stofkova A

View more IHC references on thermofisher.com

More applications with references on thermofisher.com

IHC (P) (1) | IHC (F) (1) | ICC/IF (17) | Flow (325) | ELISA (1) | Neu (1) | FN (3) | Misc (4)