

CD44 Monoclonal Antibody (IM7), APC-eFluor 780, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Human, Mouse
Published Species	Fruit fly, Non-human primate, Bat, Mouse, Human
Host/Isotype	Rat / IgG2b, kappa
Recommended Isotype Control	Rat IgG2b kappa Isotype Control (eB149/10H5), APC-eFluor 780, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	IM7
Conjugate	APC-eFluor® 780
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_1272244

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.25 µg/test	106 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: This IM7 antibody has been reported for use in flow cytometric analysis.

Applications Tested: This IM7 antibody has been tested by flow cytometric analysis of mouse splenocytes. This can be used at less than or equal to 0.25 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 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

APC-eFluor 780 emits at 780 nm and is excited with the Red laser (633 nm). Please make sure that your instrument is capable of detecting this fluorochrome.

Light sensitivity: This tandem is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

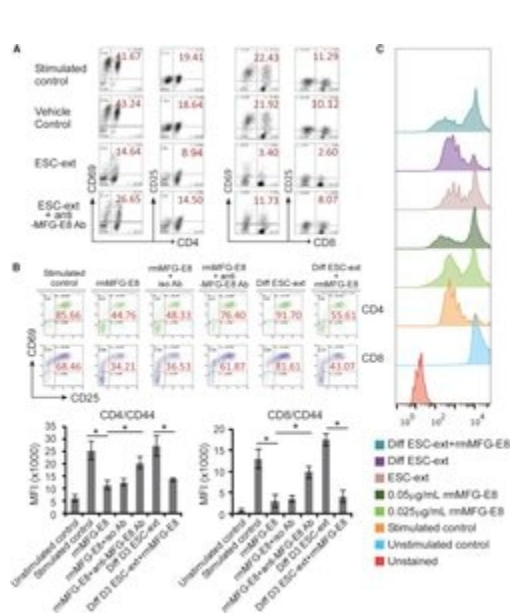
Fixation: Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100 µL cell sample + 100 µL IC Fixation Buffer) or 1-step Fix /Lyse Solution (cat. 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency

/compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

Excitation: 633-647 nm; Emission: 780 nm; Laser: Red Laser.

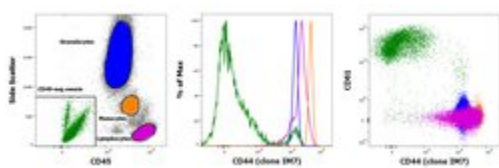
Filtration: 0.2 µm post-manufacturing filtered.

Advanced Verification Data



CD44 Antibody (47-0441-82)

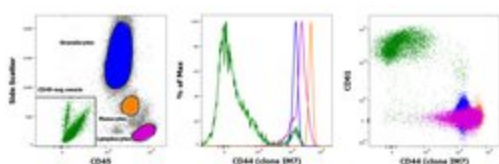
Figure 4 MFG-E8 in ESCs Suppresses T Cell Activation and Proliferation. Negatively selected C57BL/6 CD3⁺ T cells were incubated with different treatment reagents, followed by stimulation with plate-bound anti-CD3/CD28 antibodies. (A) After stimulation, T cells were either untreated (stimulated) or treated with vehicle control (Ct), ESC-derived soluble factors alone (ESC-ext prepared from D3 ESCs derived from 129S2/SvPas mouse blastocysts, 0.23 mg/ml), or in combination with anti-MFG-E8 antibody (2.5 µg/ml) for 24 hr. The cells were then stained for CD4, CD8, and activation markers CD25 and CD69 and subsequently analyzed by flow cytometry. (B) The surface expression of CD25, CD44, and CD69 on CD4⁺ and CD8⁺ T cells was analyzed by flow cytometry in untreated control (Ct), stimulated control, recombinant mouse MFG-E8 (rmMFG-E8) alone, rmMFG-E8 with isotype antibodies (iso Ab), rmMFG-E8 with anti-MFG-E8 antibody, differentiated ESC-derived soluble factors (Diff ESC-ext from D3 ESCs), or Diff ESC-ext with rmMFG-E8. The dot plots are all from one experiment in which cells were stained for CD25 and CD69 markers, and three experiments were performed with similar results. Histograms represent the mean fluorescent intensity (MFI) of either CD4⁺ or CD8⁺ T cells with CD44 expression for each treatment group. Error bars indicate mean ± SD from three independent experiments; * p < 0.05 (ANOVA and Tukey HSD). (C) Proliferation assays were performed on CFSE-labeled C57BL/6 CD3⁺ splenic cell treatment validation info.



CD44 Antibody (47-0441-82)

Staining of human peripheral blood mononuclear cells with CD45 Pacific Blue, CD61 FITC and CD44 APC-eFluor 780. As expected based on known relative expression patterns, CD44 clone IM7 stains a subset of CD45 negative cells (green), lymphocytes (pink), monocytes (orange) and granulocytes (blue). Relative expression validation info.

Product Images For CD44 Monoclonal Antibody (IM7), APC-eFluor 780, eBioscience™



CD44 Antibody (47-0441-82) in Flow

Staining of human peripheral blood mononuclear cells with CD45 Pacific Blue, CD61 FITC and CD44 APC-eFluor 780. As expected based on known relative expression patterns, CD44 clone IM7 stains a subset of CD45 negative cells (green), lymphocytes (pink), monocytes (orange) and granulocytes (blue).

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Flow Cytometry (106)

Stem cells international

Therapeutic Effects of Human Urine-Derived Stem Cells in a Rat Model of Cisplatin-Induced Acute Kidney Injury In Vivo and In Vitro.

"Published figure using CD44 monoclonal antibody (Product # 47-0441-82) in Flow Cytometry"

Authors: Sun B,Luo X,Yang C,Liu P,Yang Y,Dong X,Yang Z,Xu J,Zhang Y,Li L

Species
Not Applicable

Dilution
Not Cited

Year
2021

EBioMedicine

Near-infrared photoimmunotherapy targeting human-EGFR in a mouse tumor model simulating current and future clinical trials.

"Published figure using CD44 monoclonal antibody (Product # 47-0441-82) in Flow Cytometry"

Authors: Okada R,Furusawa A,Vermeer DW,Inagaki F,Wakiyama H,Kato T,Nagaya T,Choyke PL,Spanos WC,Allen CT, Kobayashi H

Species
Not Applicable

Dilution
Not Cited

Year
2021

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