

APC/Fire™ 810 anti-human CD38 Antibody

Catalog# / Size	303549 / 25 tests 303550 / 100 tests
Clone	HIT2
Regulatory Status	RUO
Workshop	III 155
Other Names	T10, ADP-ribosyl cyclase
Isotype	Mouse IgG1, κ
Description	CD38 is a 45 kD type II transmembrane glycoprotein also known as T10. It is an ADP-ribosyl hydrolase expressed at variable levels on hematopoietic cells and in some non-hematopoietic tissues (such as brain, muscles, and kidney). In humans, it is expressed at high levels on plasma cells and activated T and B cells. By functioning as both a cyclase and a hydrolase, CD38 mediates lymphocyte activation, adhesion, and the metabolism of cADPR and NAADP. CD31 is the ligand of CD38.

Product Details

Verified Reactivity	Human
Reported Reactivity	Chimpanzee, Horse, Cow
Antibody Type	Monoclonal
Host Species	Mouse
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 APC/Fire™ 810 under optimal conditions.
Concentration	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, 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. * APC/Fire™ 810 has a maximum excitation of 650 nm and a maximum emission of 810 nm. Excessive exposure to light, and commonly used fixation, permeabilization buffers can affect APC/Fire™ 810 fluorescence signal intensity and spread. Please keep conjugates protected from light exposure. For more information and representative data, visit our Fire Dyes page.
Excitation Laser	Red Laser (633 nm)
Application Notes	Additional reported applications (for the relevant formats) include: immunohistochemical staining of acetone-fixed frozen tissue sections ⁶ and spatial biology (IBEX) ^{10,11} .
Application References	<ol style="list-style-type: none"> 1. Kishimoto T, <i>et al.</i> Eds. 1997. Leucocyte Typing VI. Garland Publishing Inc. London. 2. Dieu M. 1998. <i>J. Exp. Med.</i> 188:373. 3. Esser M, <i>et al.</i> 2001. <i>J. Virol.</i> 75:6173. 4. Jeannin P, <i>et al.</i> 1999. <i>J. Immunol.</i> 162:2044. 5. Kapsogeorgou EK, <i>et al.</i> 2001. <i>J. Immunol.</i> 166:3107. 6. van der Voort R, <i>et al.</i> 1997. <i>J. Exp. Med.</i> 185:2121. (IHC)
(PubMed link indicates BioLegend citation)	

7. Bende RJ, *et al.* 2003. *Am. J. Pathol.* 162:105.
8. Lehner M, *et al.* 2008. *J. Leukoc. Biol.* 83:883. [PubMed](#)
9. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)
10. Radtke AJ, *et al.* 2020. *Proc Natl Acad Sci USA.* 117:33455-33465. (SB) [PubMed](#)
11. Radtke AJ, *et al.* 2022. *Nat Protoc.* 17:378-401. (SB) [PubMed](#)

Product Citations

1. Yu C, *et al.* 2021. *Med (N Y).* 2:755. [PubMed](#)
2. Tarke A, *et al.* 2022. *Cell.* 185:847. [PubMed](#)
3. Lozano-Rodríguez R, *et al.* 2022. *Cell Rep.* 38:110235. [PubMed](#)

RRID

AB_2860783 (BioLegend Cat. No. 303549)
 AB_2860784 (BioLegend Cat. No. 303550)

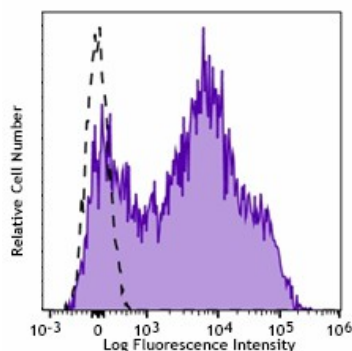
Antigen Details

Structure	ADP-ribosyl cyclase, ectoenzyme, type II glycoprotein, 45 kD
Distribution	T cells, B cells, NK, myeloid, plasma, and dendritic cells
Function	Ecto-ADP-ribosyl cyclase, calcium signaling, cell activation
Ligand/Receptor	CD31, hyaluronic acid
Cell Type	B cells, Dendritic cells, NK cells, Plasma cells, T cells
Biology Area	Immunology
Molecular Family	Adhesion Molecules, CD Molecules
Antigen References	1. Ferrero E, <i>et al.</i> 1999. <i>J. Leukoc. Biol.</i> 65:151. 2. Lund F, <i>et al.</i> 1995. <i>Immunol. Today</i> 16:469.
Gene ID	952

Other Formats

APC anti-human CD38, FITC anti-human CD38, PE anti-human CD38, PE/Cyanine5 anti-human CD38, Purified anti-human CD38, Alexa Fluor® 488 anti-human CD38, Alexa Fluor® 647 anti-human CD38, PE/Cyanine7 anti-human CD38, Biotin anti-human CD38, PerCP anti-human CD38, PerCP/Cyanine5.5 anti-human CD38, Alexa Fluor® 700 anti-human CD38, Brilliant Violet 421™ anti-human CD38, Brilliant Violet 711™ anti-human CD38, Brilliant Violet 785™ anti-human CD38, Brilliant Violet 605™ anti-human CD38, APC/Cyanine7 anti-human CD38, Purified anti-human CD38 (Maxpar® Ready), PE/Dazzle™ 594 anti-human CD38, Brilliant Violet 510™ anti-human CD38, TotalSeq™-A0389 anti-human CD38, TotalSeq™-C0389 anti-human CD38, APC/Fire™ 750 anti-human CD38, TotalSeq™-B0389 anti-human CD38, APC/Fire™ 810 anti-human CD38, Spark NIR™ 685 anti-human CD38 Antibody, TotalSeq™-D0389 anti-human CD38, GMP PE anti-human CD38, GMP FITC anti-human CD38, Pacific Blue™ anti-human CD38

Product Data



Human peripheral blood lymphocytes were stained with CD38 (clone HIT2) APC/Fire™ 810 (filled histogram) or cells were left unstained (open histogram).

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