

Purified anti-human CD38 Antibody

Catalog# / Size	303502 / 100 µg
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.
Preparation	The antibody was purified by affinity chromatography.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C.
Application	FC - Quality tested CyTOF® - Verified IHC-F - Reported in the literature. not verified in house
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 ≤ 2.0 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
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) 7. Bende RJ, <i>et al.</i> 2003. <i>Am. J. Pathol.</i> 162:105. 8. Lehner M, <i>et al.</i> 2008. <i>J. Leukoc. Biol.</i> 83:883. PubMed 9. Yoshino N, <i>et al.</i> 2000. <i>Exp. Anim. (Tokyo)</i> 49:97. (FC) 10. Radtke AJ, <i>et al.</i> 2020. <i>Proc Natl Acad Sci USA.</i> 117:33455-33465. (SB) PubMed 11. Radtke AJ, <i>et al.</i> 2022. <i>Nat Protoc.</i> 17:378-401. (SB) PubMed
Product Citations	<ol style="list-style-type: none"> 1. Rouers A, <i>et al.</i> 2021. <i>Cell Rep Med.</i> 2:100278. PubMed 2. Tornack J, <i>et al.</i> 2017. <i>PLoS One.</i> 12:e0169119. PubMed 3. Friebe E, <i>et al.</i> 2020. <i>Cell.</i> 181(7):1626-1642.e20. PubMed

4. Meckiff BJ, *et al.* 2019. *J Immunol.* 203:1276. [PubMed](#)
5. Sullivan KD, *et al.* 2021. *Cell Reports.* 36(7):109527. [PubMed](#)
6. Wagner J *et al.* 2019. *Cell.* 177(5):1330-1345. [PubMed](#)
7. Stras SF, *et al.* 2020. *Developmental Cell.* 51(3):357-373.e5. [PubMed](#)
8. Chakhtoura M, *et al.* 2021. *PLoS Pathog.* 17:e1009732. [PubMed](#)
9. Roukens AHE, *et al.* 2022. *Nat Immunol.* 23:23. [PubMed](#)
10. Mann ER, *et al.* 2020. *Sci Immunol.* :5. [PubMed](#)
11. Kaufmann M, *et al.* 2021. *Med.* 2(3):296-312.e8. [PubMed](#)
12. Vivanco Gonzalez N, *et al.* 2022. *STAR Protoc.* 3:101280. [PubMed](#)
13. Kondo H, *et al.* 2022. *Front Immunol.* 13:836923. [PubMed](#)
14. Syrimi E, *et al.* 2021. *iScience.* 24:103215. [PubMed](#)
15. O'Boyle KC, *et al.* 2020. *Methods Mol Biol.* 2111:1. [PubMed](#)
16. Olin A, *et al.* 2018. *Cell.* 174:1277. [PubMed](#)
17. Baskar R, *et al.* 2022. *Cell Rep Methods.* 2:. [PubMed](#)
18. Galbraith MD, *et al.* 2021. *eLife.* 10:00. [PubMed](#)
19. Wastyk HC, *et al.* 2021. *Cell.* 184(16):4137-4153.e14. [PubMed](#)
20. Eccles JD, *et al.* 2020. *Cell Rep.* 30:351. [PubMed](#)
21. Han L, *et al.* 2019. *Haematologica.* 10.3324/haematol.2018.205534. [PubMed](#)
22. Gee MH, *et al.* 2018. *Cell.* 172:549. [PubMed](#)
23. Newell KL, *et al.* 2021. *PLoS One.* 16:e0244855. [PubMed](#)
24. Henrick BM, *et al.* 2021. *Cell.* . [PubMed](#)
25. Roussel M, *et al.* 2021. *Cell Reports Medicine.* 2(6):100291. [PubMed](#)
26. Chng MHY, *et al.* 2020. *Immunity.* 51(6):1119-1135.e5. [PubMed](#)
27. NULL, *et al.* 2022. *Cell.* 185:916. [PubMed](#)
28. Evrard M *et al.* 2018. *Immunity.* 48(2):364-379. [PubMed](#)
29. Baum N, *et al.* 2020. *Cancers (Basel).* 13:. [PubMed](#)
30. Zhou H, *et al.* 2017. *Leukemia.* 31:2065. [PubMed](#)
31. Stensland ZC, *et al.* 2022. *iScience.* 25:103626. [PubMed](#)
32. Chevrier S, *et al.* 2021. *Cell Reports Medicine.* 2(1):100166. [PubMed](#)
33. Crawford LB, *et al.* 2021. *J Virol.* 95:. [PubMed](#)
34. Chiou SH, *et al.* 2021. *Immunity.* 54:586. [PubMed](#)
35. Li Z, *et al.* 2020. *J Clin Lab Anal.* 34:e23155. [PubMed](#)

RRID AB_314354 (BioLegend Cat. No. 303502)

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

Related Protocols

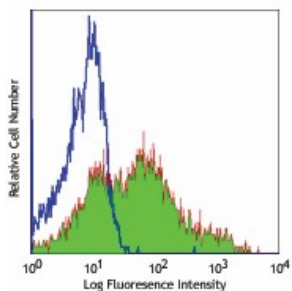
[Cell Surface Flow Cytometry Staining Protocol](#)

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 stained with purified HIT2, followed by anti-mouse IgGs FITC

For research use only. Not for diagnostic use. Not for resale. BioLegend will not be held responsible for patent infringement or other violations that may occur with the use of our products.

*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, www.biolegend.com/ordering#license). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587