

Ultra-LEAF™ Purified anti-human HLA-A,B,C Antibody

Catalog# / Size	311427 / 100 µg 311428 / 1 mg 311441 / 5 mg 311442 / 25 mg 311447 / 50 mg 311448 / 100 mg
Clone	W6/32
Regulatory Status	RUO
Other Names	Major Histocompatibility Class I, MHC class I
Isotype	Mouse IgG2a, κ
Description	MHC class I antigens associated with β2-microglobulin are expressed by all human nucleated cells. MHC class I molecules are involved in presentation of antigens to CD8 ⁺ T cells. They play an important role in cell-mediated immune responses and tumor surveillance.

Product Details

Verified Reactivity	Human, Cynomolgus, Rhesus
Reported Reactivity	African Green, Baboon, Cat, Cow, Chimpanzee
Antibody Type	Monoclonal
Host Species	Mouse
Formulation	0.2 µm filtered in phosphate-buffered solution, pH 7.2, containing no preservative. Endotoxin level is <0.01 EU/µg of the protein (<0.001 ng/µg of the protein) as determined by the LAL test.
Preparation	The Ultra-LEAF™ (Low Endotoxin, Azide-Free) antibody was purified by affinity chromatography.
Concentration	The antibody is bottled at the concentration indicated on the vial, typically between 2 mg/mL and 3 mg/mL. Older lots may have also been bottled at 1 mg/mL. 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. This Ultra-LEAF™ solution contains no preservative; handle under aseptic conditions.
Application	FC - Quality tested Activ. Block, IHC-F, IP, WB - 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 or 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	Clone W6/32 recognizes residues in the N terminus of the human β2-microglobulin molecule ²¹ . Additional reported applications (for the relevant formats) include: immunoprecipitation ² , Western blotting (non-reducing) ³ , immunohistochemical staining of acetone-fixed frozen tissue sections ^{4,5} , blocking ^{6,7} , inhibition of NK cell-mediated lysis ¹⁰ , and activation ^{8,9} . Clone W6/32 has been reported not to be suitable for immunohistochemistry on paraffin sections ¹⁷ . The LEAF™ purified antibody (Endotoxin < 0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays. For highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Cat. No. 311428) with a lower endotoxin limit than standard LEAF™ purified antibodies (Endotoxin < 0.01 EU/µg).
Application References	1. Darrow TL, <i>et al.</i> 1989. <i>J. Immunol.</i> 142:3329. 2. Stern P, <i>et al.</i> 1987. <i>J. Immunol.</i> 138:1088. 3. Tran TM, <i>et al.</i> 2001. <i>Immunogenetics</i> 53:440. 4. Barbatis C, <i>et al.</i> 1981. <i>Gut</i> 22:985. 5. Ayyoub M, <i>et al.</i> 2004. <i>Cancer Immunity</i> 4:7.
(PubMed link indicates BioLegend citation)	

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7. Fayen J, *et al.* 1998. *Int. Immunol.* 10:1347.
8. Turco MC, *et al.* 1988. *J. Immunol.* 141:2275.
9. Geppert TD, *et al.* 1989. *J. Immunol.* 142:3763.
10. Wooden SL, *et al.* 2005. *J. Immunol.* 175:1383.
11. Nagano M, *et al.* 2007. *Blood* 110:151.
12. McLoughlin RM, *et al.* 2008. *J. Immunol.* 181:1323. [PubMed](#)
13. Takahara M, *et al.* 2008. *J. Leukoc. Biol.* 83:742. [PubMed](#)
14. Lunemann A, *et al.* 2008. *J. Immunol.* 181:6170. [PubMed](#)
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16. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)
17. Vambutas A, *et al.* 2000. *Clin. Diagn. Lab. Immun.* 7:79.
18. Coppieters KT, *et al.* 2012. *J. Exp. Med.* 209:51. (epitope)
19. Crivello P, *et al.* 2013. *Hum Immunol.* 22:100. [PubMed](#)
20. Jung Y, *et al.* 2015. *Mol Cancer Res.* 13:197. [PubMed](#)
21. Shields MJ, Ribaldo RK. 1998. *Tissue Antigens.* 51(5):567-70. (epitope)

Product Citations

1. Jensen SM, *et al.* 2018. *Front Immunol.* 9:2697. [PubMed](#)
2. Blandine Monel *et al.* 2019. *Cell reports.* 27(1):142-153. [PubMed](#)
3. Dangaj D, *et al.* 2019. *Cancer Cell.* 35:885. [PubMed](#)

RRID

[AB_2783175](#) (BioLegend Cat. No. 311427)
[AB_2561492](#) (BioLegend Cat. No. 311428)
[AB_2800814](#) (BioLegend Cat. No. 311441)
[AB_2800815](#) (BioLegend Cat. No. 311442)
[AB_2783176](#) (BioLegend Cat. No. 311447)
[AB_2783177](#) (BioLegend Cat. No. 311448)

Antigen Details

Structure	Ig superfamily
Distribution	All nucleated cells
Function	Antigen presentation
Ligand/Receptor	CD3/TCR, CD8
Biology Area	Immunology, Innate Immunity
Molecular Family	MHC Antigens
Antigen References	1. Barclay AN, <i>et al.</i> Eds. 1993. <i>The Leukocyte Antigen FactsBook.</i> Academic Press Inc. San Diego.
Gene ID	3105

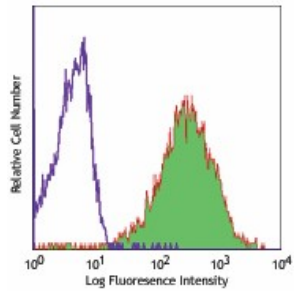
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

APC anti-human HLA-A,B,C, FITC anti-human HLA-A,B,C, PE anti-human HLA-A,B,C, PE/Cyanine5 anti-human HLA-A,B,C, Purified anti-human HLA-A,B,C, Alexa Fluor® 488 anti-human HLA-A,B,C, Alexa Fluor® 647 anti-human HLA-A,B,C, Pacific Blue™ anti-human HLA-A,B,C, PerCP anti-human HLA-A,B,C, APC/Cyanine7 anti-human HLA-A,B,C, PerCP/Cyanine5.5 anti-human HLA-A,B,C, Ultra-LEAF™ Purified anti-human HLA-A,B,C, PE/Cyanine7 anti-human HLA-A,B,C, Brilliant Violet 510™ anti-human HLA-A,B,C, Alexa Fluor® 700 anti-human HLA-A,B,C, PE/Dazzle™ 594 anti-human HLA-A,B,C, Biotin anti-human HLA-A,B,C, Brilliant Violet 605™ anti-human HLA-A,B,C, APC/Fire™ 750 anti-human HLA-A,B,C, TotalSeq™-A0058 anti-human HLA-A,B,C, TotalSeq™-C0058 anti-human HLA-A,B,C, TotalSeq™-B0058 anti-human HLA-A,B,C, Spark NIR™ 685 anti-human HLA-A,B,C, TotalSeq™-D0058 anti-human HLA-A,B,C

Product Data



Human peripheral blood lymphocytes stained with Ultra-LEAF™ purified HLA-A,B,C (clone W6/32), followed by anti-mouse IgG FITC.

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