# Alexa Fluor® 700 anti-human HLA-A,B,C Antibody

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| **Catalog# / Size** | 311437 / 25 tests<br>311438 / 100 tests |
| **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

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| **Verified Reactivity** | Human, Cynomolgus, Rhesus |
| **Reported Reactivity** | African Green, Baboon, Cat, Cow, Chimpanzee |
| **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 Alexa Fluor® 700 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.<br><br>* Alexa Fluor® 700 has a maximum emission of 719 nm when it is excited at 633 nm / 635 nm. Prior to using Alexa Fluor® 700 conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.<br><br>Alexa Fluor® and Pacific Blue™ are trademarks of Life Technologies Corporation.<br><br>View full statement regarding label licenses |
| **Excitation Laser** | Red Laser (633 nm) |
| **Application Notes** | Clone W6/32 recognizes residues in the N terminus of the human ß2-microglobulin molecule[21].<br><br>Additional reported applications (for the relevant formats) include: immunoprecipitaton[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**<br><br>**(PubMed link indicates BioLegend citation)** | 1. Darrow TL, *et al.* 1989. *J. Immunol.* 142:3329.<br>2. Stern P, *et al.* 1987. *J. Immunol.* 138:1088.<br>3. Tran TM, *et al.* 2001. *Immunogenetics* 53:440. |

4. Barbatis C, *et al.* 1981. *Gut* 22:985.
5. Ayyoub M, *et al.* 2004. *Cancer Immunity* 4:7.
6. DeFelice M, *et al.* 1990. *Cell. Immunol.* 126:420.
7. Fayen J, *et al.* 1998. *Int. Immunol.* 10:1347.
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9. Geppert TD, *et al.* 1989. *J. Immunol.* 142:3763.
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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. Ribaudo RK. 1998. Tissue Antigens. 51(5):567-70. (epitope)

**Product Citations**

1. Koutsakos M, *et al.* 2019. Front Immunol. 10:1158. PubMed
2. McQueen BE, *et al.* 2020. Infect Immun. :88. PubMed
3. Lim SY, *et al.* 2021. Biomedicines. 9:. PubMed

**RRID**

AB_2566305 (BioLegend Cat. No. 311437)
AB_2566306 (BioLegend Cat. No. 311438)

## Antigen Details

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| **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, *et al.* Eds. 1993. The Leukocyte Antigen FactsBook. Academic Press Inc. San Diego. |
| **Gene ID** | 3105 |

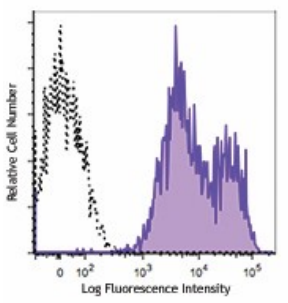
## Related Protocols

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 were stained with HLA-A,B,C (clone W6/32) Alexa Fluor® 700 (filled histogram) or mouse IgG2a, κ Alexa Fluor® 700 isotype control (open histogram).



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