

APC anti-human β 2-microglobulin Antibody

Catalog# / Size	316311 / 25 tests 316312 / 100 tests
Clone	2M2
Regulatory Status	RUO
Other Names	β 2M, β 2-M, beta2-microglobulin b2-M, b2M
Isotype	Mouse IgG1, κ
Description	β 2-microglobulin (β 2M) is a 12 kD nonpolymorphic Ig like protein. It is a non-membrane-anchored glycoprotein and is noncovalently associated with 39-44 kD polymorphic heavy chains of MHC class I molecules to form HLA class I antigen complex. In association with HLA class I, β 2M is expressed on all leukocytes, platelets, endothelial cells, and epithelial cells. β 2M plays an essential role both in governing MHC class I molecules stability and in promoting antigen binding and presenting the antigen to CD3/TCR complex of CD8 ⁺ T cells.

Product Details

Verified Reactivity	Human
Reported Reactivity	African Green, Baboon, Cynomolgus, Rhesus, Pig
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Purified human β 2-microglobulin
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography and conjugated with APC 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 μ l per million cells in 100 μ l staining volume or 5 μ l per 100 μ l of whole blood.
Excitation Laser	Red Laser (633 nm)
Application Notes	Additional reported applications (for the relevant formats) include: Western blotting, and ELISA.
Application References	<ol style="list-style-type: none">1. Meissner TB, <i>et al.</i> 2010. <i>Proc Natl Acad Sci USA</i>. PubMed2. Rizvi SM, <i>et al.</i> 2011. <i>J. Immunol.</i> 186:2309. PubMed3. Meissner TB, <i>et al.</i> 2012. <i>J Immunol.</i> 188:4951. PubMed.
Product Citations	<ol style="list-style-type: none">1. Chung H <i>et al.</i> 2018. <i>Cell.</i> 172(4):811-824. PubMed2. Mitchell K, <i>et al.</i> 2018. <i>J Exp Med.</i> 215:1709. PubMed3. Zhuang X, <i>et al.</i> 2020. <i>Front Immunol.</i> 2.415972222. PubMed4. Xu X, <i>et al.</i> 2018. <i>Sci Rep.</i> 8:11649. PubMed5. Gondim M, <i>et al.</i> 2015. <i>J Virol.</i> 89: 12518 - 12524. PubMed6. Hamilton JR, <i>et al.</i> 2021. <i>Cell Reports.</i> 35(9):109207. PubMed
RRID	AB_10643412 (BioLegend Cat. No. 316311) AB_10641281 (BioLegend Cat. No. 316312)

Antigen Details

Structure	Nonpolymorphic Ig like structure, noncovalently associated with heavy chain of MHC class I molecules, 12 kD
Distribution	Leukocytes, platelets, endothelial cells, epithelial cells
Function	Govern MHC class I molecule stability, promote MHC class I molecules binding and presenting peptide antigens to CD8 ⁺ T cells
Ligand/Receptor	CD3/TCR complex, CD8
Cell Type	Endothelial cells, Epithelial cells, Leukocytes, Platelets
Biology Area	Immunology
Molecular Family	MHC Antigens
Antigen References	<ol style="list-style-type: none">1. Engelhard VH. 1994. <i>Curr. Opin. Immunol.</i> 6:13.2. Williams DB, <i>et al.</i> 1989. <i>J. Immunol.</i> 142:2796.3. Danliczyk UG and TL. Delovitch. 1994. <i>J. Immunol.</i> 153:3533.4. Williams A, <i>et al.</i> 2002. <i>Tissue Antigens</i> 59:3.
Gene ID	567

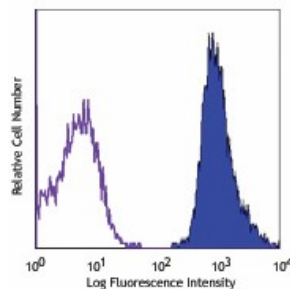
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

Purified anti-human β 2-microglobulin, FITC anti-human β 2-microglobulin, PE anti-human β 2-microglobulin, Biotin anti-human β 2-microglobulin, APC anti-human β 2-microglobulin, HRP anti-human β 2-microglobulin, PE/Cyanine7 anti-human β 2-microglobulin, APC/Fire™ 750 anti-human β 2-microglobulin, PerCP/Cyanine5.5 anti-human β 2-microglobulin, PE/Dazzle™ 594 anti-human β 2-microglobulin, TotalSeq™-A0057 anti-human β 2-microglobulin, TotalSeq™-C0057 anti-human β 2-microglobulin, TotalSeq™-B0057 anti-human β 2-microglobulin

Product Data



Human peripheral blood lymphocytes stained with 2M2 APC

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