

PE/Cyanine7 anti-human β 2-microglobulin Antibody

Catalog# / Size	316317 / 25 tests 316318 / 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 and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography and conjugated with PE/Cyanine7 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	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application Notes	Additional reported applications (for the relevant formats) include: Western blotting, and ELISA.
Additional Product Notes	BioLegend is in the process of converting the name PE/Cy7 to PE/Cyanine7. The dye molecule remains the same, so you should expect the same quality and performance from our PE/Cyanine7 products. Please contact Technical Service if you have any questions.
Application References	<ol style="list-style-type: none"> 1. Meissner TB, <i>et al.</i> 2010. <i>Proc Natl Acad Sci USA</i>. PubMed 2. Rizvi SM, <i>et al.</i> 2011. <i>J. Immunol.</i> 186:2309. PubMed 3. Meissner TB, <i>et al.</i> 2012. <i>J Immunol.</i> 188:4951. PubMed.
RRID	AB_2632830 (BioLegend Cat. No. 316317) AB_2632831 (BioLegend Cat. No. 316318)

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, et al. 1989. <i>J. Immunol.</i> 142:2796.3. Danliczyk UG and TL. Delovitch. 1994. <i>J. Immunol.</i> 153:3533.4. Williams A, et al. 2002. <i>Tissue Antigens</i> 59:3.
Gene ID	567

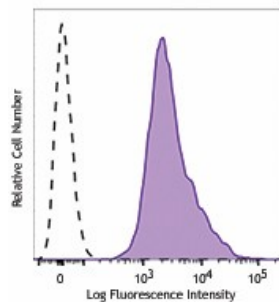
Related Protocols

[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 were stained with anti-human β 2-microglobulin (clone 2M2) PE/Cyanine7 (filled histogram), or mouse IgG1, κ PE/Cyanine7 (open histogram).

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