

## PE anti-human $\beta$ 2-microglobulin Antibody

<b>Catalog# / Size</b>	316305 / 25 tests 316306 / 100 tests
<b>Clone</b>	2M2
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	$\beta$ 2M, $\beta$ 2-M, beta2-microglobulin b2-M, b2M
<b>Isotype</b>	Mouse IgG1, $\kappa$
<b>Description</b>	$\beta$ 2-microglobulin ( $\beta$ 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, $\beta$ 2M is expressed on all leukocytes, platelets, endothelial cells, and epithelial cells. $\beta$ 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 <sup>+</sup> T cells.

### Product Details

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<b>Verified Reactivity</b>	Human
<b>Reported Reactivity</b>	African Green, Baboon, Cynomolgus, Rhesus, Pig
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Immunogen</b>	Purified human $\beta$ 2-microglobulin
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
<b>Preparation</b>	The antibody was purified by affinity chromatography, and conjugated with PE under optimal conditions.
<b>Concentration</b>	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.)
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">FC - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is 5 $\mu$ l per million cells in 100 $\mu$ l staining volume or 5 $\mu$ l per 100 $\mu$ l of whole blood.
<b>Excitation Laser</b>	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
<b>Application Notes</b>	Additional reported applications (for the relevant formats) include: Western blotting, and ELISA.
<b>Application References</b>	<ol style="list-style-type: none"><li>1. Meissner TB, <i>et al.</i> 2010. <i>Proc Natl Acad Sci USA</i>. <a href="#">PubMed</a></li><li>2. Rizvi SM, <i>et al.</i> 2011. <i>J. Immunol.</i> 186:2309. <a href="#">PubMed</a></li><li>3. Meissner TB, <i>et al.</i> 2012. <i>J Immunol.</i> 188:4951. <a href="#">PubMed</a>.</li></ol>
<b>Product Citations</b>	<ol style="list-style-type: none"><li>1. Mitchell K, <i>et al.</i> 2018. <i>J Exp Med.</i> 215:1709. <a href="#">PubMed</a></li><li>2. Fujii S, <i>et al.</i> 2019. <i>Stem Cells Dev.</i> 28:28. <a href="#">PubMed</a></li><li>3. Amabile A <i>et al.</i> 2016. <i>Cell.</i> 167(1):219-232. <a href="#">PubMed</a></li><li>4. Jost M, <i>et al.</i> 2021. <i>eLife.</i> 10:00. <a href="#">PubMed</a></li><li>5. Hamilton JR, <i>et al.</i> 2021. <i>Cell Reports.</i> 35(9):109207. <a href="#">PubMed</a></li></ol>
<b>RRID</b>	AB_492840 (BioLegend Cat. No. 316305) AB_492839 (BioLegend Cat. No. 316306)

## Antigen Details

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<b>Structure</b>	Nonpolymorphic Ig like structure, noncovalently associated with heavy chain of MHC class I molecules, 12 kD
<b>Distribution</b>	Leukocytes, platelets, endothelial cells, epithelial cells
<b>Function</b>	Govern MHC class I molecule stability, promote MHC class I molecules binding and presenting peptide antigens to CD8 <sup>+</sup> T cells
<b>Ligand/Receptor</b>	CD3/TCR complex, CD8
<b>Cell Type</b>	Endothelial cells, Epithelial cells, Leukocytes, Platelets
<b>Biology Area</b>	Immunology
<b>Molecular Family</b>	MHC Antigens
<b>Antigen References</b>	<ol style="list-style-type: none"><li>1. Engelhard VH. 1994. <i>Curr. Opin. Immunol.</i> 6:13.</li><li>2. Williams DB, et al. 1989. <i>J. Immunol.</i> 142:2796.</li><li>3. Danliczyk UG and TL. Delovitch. 1994. <i>J. Immunol.</i> 153:3533.</li><li>4. Williams A, et al. 2002. <i>Tissue Antigens</i> 59:3.</li></ol>
<b>Gene ID</b>	<a href="#">567</a>

## Related Protocols

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[Cell Surface Flow Cytometry Staining Protocol](#)

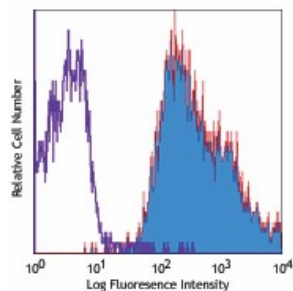
## Other Formats

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

## Product Data

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Human peripheral blood lymphocytes stained with 2M2 PE

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