

TotalSeq™-B0057 anti-human β 2-microglobulin Antibody

Catalog# / Size	316325 / 10 μ g
Clone	2M2
Regulatory Status	RUO
Other Names	β 2M, β 2-M, beta2-microglobulin b2-M, b2M
Isotype	Mouse IgG1, κ
Barcode Sequence	CAGCCCGATTAAGGT
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 1 mM EDTA
Preparation	The antibody was purified by chromatography and conjugated with TotalSeq™-B oligomer under optimal conditions.
Concentration	0.5 mg/mL
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C. Do not freeze.
Application	PG - Quality tested
Recommended Usage	<p>Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis and the oligomer sequence is confirmed by sequencing. TotalSeq™-B antibodies are compatible with 10x Genomics Single Cell Gene Expression Solutions.</p> <p>To maximize performance, it is strongly recommended that the reagent be titrated for each application, and that you centrifuge the antibody dilution before adding to the cells at 14,000xg at 2 - 8°C for 10 minutes. Carefully pipette out the liquid avoiding the bottom of the tube and add to the cell suspension. For Proteogenomics analysis, the suggested starting amount of this reagent for titration is \leq 1.0 μg per million cells in 100 μL volume. Refer to the corresponding TotalSeq™ protocol for specific staining instructions.</p> <p>Buyer is solely responsible for determining whether Buyer has all intellectual property rights that are necessary for Buyer's intended uses of the BioLegend TotalSeq™ products. For example, for any technology platform Buyer uses with TotalSeq™, it is Buyer's sole responsibility to determine whether it has all necessary third party intellectual property rights to use that platform and TotalSeq™ with that platform.</p>
Application Notes	Additional reported applications (for the relevant formats) include: Western blotting, and ELISA.
Additional Product Notes	TotalSeq™ reagents are designed to profile protein levels at a single cell level following an optimized protocol similar to the CITE-seq workflow. A compatible single cell device (e.g. 10x Genomics Chromium System and Reagents) and sequencer (e.g. Illumina analyzers) are required. Please contact technical support for more information, or visit biolegend.com/totalseq .

The barcode flanking sequences are GTGACTGGAGTTTCAGACGTGTGCTCTTCCGATCTNNNNNNNNNN (PCR handle), and NNNNNNNNGCTTTAAGGCCGGTCCTAGC*A*A (capture sequence). N represents either randomly selected A, C, G, or T, and * indicates a phosphorothioated bond, to prevent nuclease degradation.

View more applications data for this product in our [Scientific Poster Library](#).

Application References

(PubMed link indicates BioLegend citation)

1. Meissner TB, *et al.* 2010. *Proc Natl Acad Sci USA*. [PubMed](#)
2. Rizvi SM, *et al.* 2011. *J. Immunol.* 186:2309. [PubMed](#)
3. Meissner TB, *et al.* 2012. *J Immunol.* 188:4951. [PubMed](#).

RRID AB_2894543 (BioLegend Cat. No. 316325)

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

[TotalSeq™-B or -C with 10x Feature Barcoding Technology](#)

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

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