

TotalSeq™-B0254 anti-human Hashtag 4 Antibody

Catalog# / Size	394637 / 10 µg
Clone	LNH-94; 2M2
Regulatory Status	RUO
Other Names	Na ⁺ /K ⁺ ATPase β3, ATP1B3, β2M, β2-M, beta2-microglobulin b2-M, b2M
Isotype	Mouse IgG1, κ (all clones)
Barcode Sequence	AGTAAGTTCAGCGTA
Description	TotalSeq™ anti-human Hashtag reagents are designed to label most human cells, using a combination of two clones that recognize CD298 and β2 microglobulin, respectively. The antibodies are conjugated to the same oligonucleotide, pre-mixed to be used following an optimized protocol similar to the CITE-seq workflow.

β2-microglobulin (β2M) 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, β2M is expressed on all leukocytes, platelets, endothelial cells, and epithelial cells. β2M 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.

CD298 or the β3 Na⁺/K⁺ ATPase, is a 42 kD type II transmembrane protein, also known as ATP1B3. An integral plasma membrane protein, Na⁺/K⁺ ATPase is composed of one α and one β subunits. Four isoforms of the α and three isoforms of the β subunits have been reported. Na⁺/K⁺ ATPase couples ATP hydrolysis to the development of an ionic gradient by pumping Na⁺ and K⁺ ions in opposite directions across the cell plasma membrane. It has broad tissue distribution, including all leukocytes and many other tissues.

Product Details

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Mouse
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 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	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 .

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 $\leq 1.0 \mu\text{g}$ per million cells in 100 μL volume. Refer to the corresponding TotalSeq™ protocol for specific staining instructions.

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.

Additional Product Notes

The TotalSeq™-B Hashtag reagents use **the same** set of primers as regular TotalSeq™-B antibodies. Please refer to the protocol for details.

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 GTGACTGGAGTTCAGACGTGTGCTCTTCCGATCTNNNNNNNNNN (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](#).

Product Citations

1. Michaels YS, *et al.* 2022. Sci Adv. 8:eabn5522. [PubMed](#)
2. Liu C, *et al.* 2021. Cell Res. 31:1106. [PubMed](#)
3. Hara T, *et al.* 2021. Cancer Cell. 39(6):779-792.e11. [PubMed](#)

RRID

AB_2814350 (BioLegend Cat. No. 394637)

Antigen Details

Gene ID

[483](#)

[567](#)

Related Protocols

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

Other Formats

TotalSeq™-C0262 anti-human Hashtag 12, TotalSeq™-A0276 anti-human Hashtag 16, TotalSeq™-C0284 anti-human Hashtag 24, TotalSeq™-C0264 anti-human Hashtag 14, TotalSeq™-C0265 anti-human Hashtag 15, TotalSeq™-C0297 anti-human Hashtag 23, TotalSeq™-A0282 anti-human Hashtag 22, TotalSeq™-A0284 anti-human Hashtag 24, TotalSeq™-B0277 anti-human Hashtag 17, TotalSeq™-B0279 anti-human Hashtag 19, TotalSeq™-C0296 anti-human Hashtag 11, TotalSeq™-B0296 anti-human Hashtag 11, TotalSeq™-C0281 anti-human Hashtag 21, TotalSeq™-A0280 anti-human Hashtag 20, TotalSeq™-A0279 anti-human Hashtag 19, TotalSeq™-B0265 anti-human Hashtag 15, TotalSeq™-C0282 anti-human Hashtag 22, TotalSeq™-B0297 anti-human Hashtag 23, TotalSeq™-C0263 anti-human Hashtag 13, TotalSeq™-A0259 anti-human Hashtag 9, TotalSeq™-A0262 anti-human Hashtag 12, TotalSeq™-A0296 anti-human Hashtag 11, TotalSeq™-A0278 anti-human Hashtag 18, TotalSeq™-C0277 anti-human Hashtag 17, TotalSeq™-A0297 anti-human Hashtag 23, TotalSeq™-B0263 anti-human Hashtag 13, TotalSeq™-C0253 anti-human Hashtag 3, TotalSeq™-C0255 anti-human Hashtag 5, TotalSeq™-B0278 anti-human Hashtag 18, TotalSeq™-B0281 anti-human Hashtag 21, TotalSeq™-B0284 anti-human Hashtag 24, TotalSeq™-A0251 anti-human Hashtag 1, TotalSeq™-A0255 anti-human Hashtag 5, TotalSeq™-A0256 anti-human Hashtag 6, TotalSeq™-A0257 anti-human Hashtag 7, TotalSeq™-B0257 anti-human Hashtag 7, TotalSeq™-A0258 anti-human Hashtag 8, TotalSeq™-B0251 anti-human Hashtag 1, TotalSeq™-B0253 anti-human Hashtag 3, TotalSeq™-C0257 anti-human Hashtag 7, TotalSeq™-C0259 anti-human Hashtag 9, TotalSeq™-A0253 anti-human Hashtag 3, TotalSeq™-A0254 anti-human Hashtag 4, TotalSeq™-A0260 anti-human Hashtag 10, TotalSeq™-C0254 anti-human Hashtag 4, TotalSeq™-B0256 anti-human Hashtag 6, TotalSeq™-B0258 anti-human Hashtag 8, TotalSeq™-B0252 anti-human Hashtag 2, TotalSeq™-C0258 anti-human Hashtag 8, TotalSeq™-C0276 anti-human Hashtag 16, TotalSeq™-C0278 anti-human Hashtag 18, TotalSeq™-C0279 anti-human Hashtag 19, TotalSeq™-C0280 anti-human Hashtag 20, TotalSeq™-A0277 anti-human Hashtag 17, TotalSeq™-A0281 anti-

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