

TotalSeq™-A0109 anti-mouse CD16/32 Antibody

Catalog# / Size	101343 / 10 µg
Clone	93
Regulatory Status	RUO
Other Names	Fcγ R III/II, Ly-17
Isotype	Rat IgG2a, λ
Barcode Sequence	TTCGATGCTGGAGCA
Description	CD16 is low affinity IgG Fc receptor III (FcR III) and CD32 is FcR II. CD16/CD32 are expressed on B cells, monocytes/macrophages, NK cells, granulocytes, mast cells, and dendritic cells. The Fc receptors bind antibody-antigen immune complexes and mediate adaptive immune responses.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	Sorted pre-B cells
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™-A 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™-A 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 ≤ 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	<p>Clone 93 can be used for blocking of CD16/CD32 interactions with the Fc domain of immunoglobulins, but is not the same clone as 2.4G2.</p> <p>The 93 mAb is specific to the common epitope of CD16/CD32. Additional reported applications (for the relevant formats) include: immunoprecipitation¹ and blocking of Fc-mediated reactions in functional studies^{2,4,23}. It is useful for blocking non-specific binding of immunoglobulin to Fc receptors. For blocking of Fc receptors in flow cytometric analysis, pre-incubate the cells with purified anti-CD16/CD32 antibody (=1.0 µg per 10⁶ cells in 100 µL volume) for 5-10 minutes on ice prior to immunostaining. For highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Cat. No. 101330) (Endotoxin <0.01 EU/µg, Azide-Free, 0.2 µm filtered).</p>

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 CCTTGGCACCCGAGAATTCCA (PCR handle), and BAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA*A*A (capture sequence). B represents either 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)

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Product Citations

1. Pisu D, *et al.* 2021. *J Exp Med.* 218:. [PubMed](#)

RRID

AB_2750532 (BioLegend Cat. No. 101343)

Antigen Details

Structure	Ig superfamily, 40-60 kD
Distribution	B cells, monocyte/macrophages, NK cells, neutrophils, mast cells, dendritic cells
Function	Low affinity receptors for IgG
Ligand/Receptor	IgG
Cell Type	B cells, Dendritic cells, Macrophages, Mast cells, Monocytes, Neutrophils, NK cells
Biology Area	Immunology, Innate Immunity
Molecular Family	CD Molecules, Fc Receptors
Antigen References	<ol style="list-style-type: none">1. Barclay AN, <i>et al.</i> 1997. <i>The Leukocyte Antigen FactsBook</i> Academic Press.2. Unkeless JC. 1989. <i>J. Clin. Invest.</i> 83:355.3. Qiu WQ, <i>et al.</i> 1990. <i>Science</i> 248:732.
Gene ID	14130 14131

Related Protocols

[TotalSeq™-A Antibodies and Cell Hashing with 10x Single Cell 3' Reagent Kit v3 3.1 Protocol](#)

Other Formats

Biotin anti-mouse CD16/32, FITC anti-mouse CD16/32, PE anti-mouse CD16/32, Purified anti-mouse CD16/32, Ultra-LEAF™ Purified anti-mouse CD16/32, Alexa Fluor® 647 anti-mouse CD16/32, PE/Cyanine7 anti-mouse CD16/32, TruStain FcX™ (anti-mouse CD16/32), PerCP/Cyanine5.5 anti-mouse CD16/32, APC anti-mouse CD16/32, APC/Cyanine7 anti-mouse CD16/32, Brilliant Violet 421™ anti-mouse CD16/32, Brilliant Violet 510™ anti-mouse CD16/32, Purified anti-mouse CD16/32 (Maxpar® Ready), Brilliant Violet 711™ anti-mouse CD16/32, TotalSeq™-A0109 anti-mouse CD16/32, TotalSeq™-B0109 anti-mouse CD16/32, TotalSeq™-C0109 anti-mouse CD16/32

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