TotalSeq™-D0162 anti-human CD64 Antibody

Catalog# / Size	305051 / 10 µg
Clone	10.1
Regulatory Status	RUO
Workshop	VI MA36
Other Names	FcγRI, FcR I
Isotype	Mouse IgG1, κ
Barcode Sequence	AAGTATGCCCTACGA
Description	CD64 is a 72 kD single chain type I glycoprotein also known as FcγRI and FcR I. CD64 is a member of the immunoglobulin superfamily and is expressed on monocytes/macrophages, dendritic cells, and activated granulocytes. The expression can be upregulated by IFN-γ stimulation. CD64 binds IgG immune complex. It plays a role in antigen capture, phagocytosis of IgG/antigen complexes, and antibody-dependent cellular cytotoxicity (ADCC).

Product Details

Verified Reactivity	Human, Cynomolgus, Rhesus
Reported Reactivity	Baboon, Capuchin Monkey, Chimpanzee, Squirrel Monkey
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Human rheumatoid synovial fluid cells and fibronectin-purified monocytes.
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™-D 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™-D antibodies are compatible with Mission Bio's Tapestri Single-Cell Sequencing Platform for simultaneous detection of DNA and Protein. 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. 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.
Application Notes	Clone 10.1 recognizes the EC3 epitope of CD64. While both contain the EC3 domain, in-house testing suggests that clone 10.1 preferentially binds to CD64A (FcγRIA), but not CD64B (FcγRIB). Additional reported applications (for the relevant formats) include: blocking of human IgG3 and murine IgG2a binding to FcγRI[2,5,6,11] and immunohistochemical staining of acetone-fixed frozen tissue sections[12].

Additional Product Notes	TotalSeq™-D reagents are designed to profile protein expression at single cell level. The Mission Bio Tapestri platform and sequencer (e.g. Illumina analyzers) are required. Please contact technical support for more information, or visit biolegend.com/totalseq/single-cell-dna The barcode flanking sequences are CGAGATGACTACGCTACTCATGG (PCR handle), and GAGCCGATCTAGTATCTCAGT*C*G (capture sequence). * indicates a phosphorothioated bond, to prevent nuclease degradation. View more applications data for this product in our Application Technical Notes.
Application References **(PubMed link indicates BioLegend citation)**	1. McMichael A, *et al.* Eds. 1987. Leucocyte Typing III. Oxford University Press. New York. 2. Schlossman S, *et al.* Eds. 1995. Leucocyte Typing V. Oxford University Press. New York. p. 874. 3. Kishimoto T, *et al.* Eds. 1997. Leucocyte Typing VI. Garland Publishing Inc. London. 4. Holl V, *et al.* 2004. *J. Immunol.* 173:6274. 5. Hober D, *et al.* 2002. *J. Gen. Virol.* 83:2169. 6. Cho HJ, *et al.* 2007. *Physiol Genomics* 149:60. 7. van Tits L, *et al.* 2005. *Arterioscler Thromb Vasc Biol.* 25:717. PubMed 8. Bruhns P, *et al.* 2008. *Blood* 113:3716. PubMed 9. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC) 10. Carter DL, *et al.* 1999. *Cytometry* 37:41. (FC) 11. Dougherty GJ, *et al.* 1987. *Eur. J. Immunol.* 17:1453. 12. Blom AB, *et al.* 2003. *Arthritis Rheum.* 48(4):1002-14. (IHC)
RRID	AB_2892360 (BioLegend Cat. No. 305051)

Antigen Details

Structure	Ig superfamily, type I glycoprotein, 72 kD
Distribution	Monocytes, macrophages, dendritic cells, activated granulocytes
Function	Phagocytosis, ADCC
Ligand/Receptor	IgG receptor
Cell Type	Dendritic cells, Granulocytes, Macrophages, Monocytes
Biology Area	Immunology, Innate Immunity
Molecular Family	CD Molecules, Fc Receptors
Antigen References	1. Hulett M, *et al.* 1994. *Adv. Immunol.* 57:1. 2. van de Winkel J, *et al.* 1993. *Immunol. Today* 14:215.
Gene ID	2209

Related Protocols

TotalSeq™-D with Mission Bio Tapestri® Single-Cell DNA + Protein Protocol

Other Formats

Biotin anti-human CD64, FITC anti-human CD64, PE anti-human CD64, Purified anti-human CD64, Alexa Fluor® 488 anti-human CD64, Alexa Fluor® 647 anti-human CD64, APC anti-human CD64, Pacific Blue™ anti-human CD64, Brilliant Violet 421™ anti-human CD64, PE/Cyanine7 anti-human CD64, PerCP/Cyanine5.5 anti-human CD64, APC/Cyanine7 anti-human CD64, Brilliant Violet 510™ anti-human CD64, Purified anti-human CD64 (Maxpar® Ready), PE/Dazzle™ 594 anti-human CD64, Brilliant Violet 605™ anti-human CD64, APC/Fire™ 750 anti-human CD64, TotalSeq™-A0162 anti-human CD64, Brilliant Violet 711™ anti-human CD64, Alexa Fluor® 700 anti-human CD64, Brilliant Violet 785™ anti-human CD64, TotalSeq™-C0162 anti-human CD64, Ultra-LEAF™ Purified anti-human CD64, TotalSeq™-B0162 anti-human CD64, TotalSeq™-D0162 anti-human CD64, GMP PE anti-human CD64, GMP FITC anti-human CD64

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