

## TotalSeq™-D0081 anti-human CD14 Antibody

<b>Catalog# / Size</b>	301865 / 10 µg
<b>Clone</b>	M5E2
<b>Regulatory Status</b>	RUO
<b>Workshop</b>	III 329
<b>Other Names</b>	LPS receptor
<b>Isotype</b>	Mouse IgG2a, κ
<b>Barcode Sequence</b>	TCTCAGACCTCCGTA
<b>Description</b>	CD14 is a 53-55 kD glycosylphosphatidylinositol (GPI)-linked membrane glycoprotein also known as LPS receptor. CD14 is expressed at high levels on monocytes and macrophages, and at lower levels on granulocytes. Some dendritic cell populations such as interfollicular dendritic cells, reticular dendritic cells, and Langerhans cells have also been reported to express CD14. As a high-affinity receptor for LPS, CD14 is involved in the clearance of gram-negative pathogens, and in the upregulation of adhesion molecules and expression of cytokines in monocytes and neutrophils.

### Product Details

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<b>Verified Reactivity</b>	Human, Cynomolgus, Rhesus
<b>Reported Reactivity</b>	African Green, Capuchin Monkey, Cow, Chimpanzee, Common Marmoset, Cotton-topped Tamarin, Dog, Pigtailed Macaque, Squirrel Monkey
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Immunogen</b>	Full-length human CD14 protein
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 1 mM EDTA
<b>Preparation</b>	The antibody was purified by chromatography and conjugated with TotalSeq™-D oligomer under optimal conditions.
<b>Concentration</b>	0.5 mg/mL
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">PG - Quality tested</a>
<b>Recommended Usage</b>	<p>Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> and the oligomer sequence is confirmed by sequencing. TotalSeq™-D antibodies are compatible with <a href="#">Mission Bio's Tapestry Single-Cell Sequencing Platform</a> for simultaneous detection of DNA and Protein.</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>
<b>Application Notes</b>	The M5E2 antibody inhibits monocyte activation and cytokine production induced by LPS. Additional reported applications (for the relevant formats) include: immunohistochemical staining of

acetone-fixed frozen sections, blocking of LPS stimulation<sup>4</sup>, and immunofluorescence microscopy<sup>5</sup>. Clone M5E2 is not recommended for immunohistochemical staining of formalin-fixed paraffin-embedded sections. The Ultra-LEAF™ purified antibody (Endotoxin < 0.01 EU/μg, Azide-Free, 0.2 μm filtered) is recommended for functional assays (Cat. No. 301861 and 301862).

#### 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](http://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.* 1987. Leucocyte Typing III. Oxford University Press. New York.
2. Knapp W, *et al.* Eds. 1989. Leucocyte Typing IV. Oxford University Press. New York. (IHC-F)
3. Schlossman S, *et al.* Eds. 1995. Leucocyte Typing V. Oxford University Press. New York.
4. Power CP, *et al.* 2004. *J. Immunol.* 173:5229. (Block)
5. Williams KC, *et al.* 2001. *J. Exp. Med.* 193:905.
6. Iwamoto S, *et al.* 2007. *J. Immunol.* 179:1449. (FC) [PubMed](#)
7. Santer DM, *et al.* 2010. *J. Immunol.* 485:4739. [PubMed](#)
8. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)
9. Zizzo G, *et al.* 2012. *J. Immunol.* 189:3508. [PubMed](#)
10. Stoeckius M, *et al.* 2017. *Nat. Methods.* 14:865. (PG)
11. Peterson VM, *et al.* 2017. *Nat. Biotechnol.* 35:936. (PG)

#### RRID

AB\_2892347 (BioLegend Cat. No. 301865)

## Antigen Details

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<b>Structure</b>	GPI-linked membrane glycoprotein, 53-55 kD
<b>Distribution</b>	Monocytes, macrophages, granulocytes (low)
<b>Function</b>	LPS receptor, clearance of Gram-negative pathogens
<b>Ligand/Receptor</b>	LPS
<b>Cell Type</b>	Granulocytes, Macrophages, Monocytes, Neutrophils
<b>Biology Area</b>	Cell Biology, Immunology, Innate Immunity, Neuroinflammation, Neuroscience
<b>Molecular Family</b>	CD Molecules
<b>Antigen References</b>	<ol style="list-style-type: none"><li>1. Stocks S, <i>et al.</i> 1990. <i>Biochem. J.</i> 268:275.</li><li>2. Wright S, <i>et al.</i> 1990. <i>Science</i> 249:1434.</li></ol>
<b>Gene ID</b>	<a href="#">929</a>

## Related Protocols

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[TotalSeq™-D with Mission Bio Tapestri® Single-Cell DNA + Protein Protocol](#)

## Other Formats

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APC anti-human CD14, FITC anti-human CD14, PE anti-human CD14, Purified anti-human CD14, PE/Cyanine7 anti-human CD14, Alexa Fluor® 488 anti-human CD14, Alexa Fluor® 647 anti-human CD14, Ultra-LEAF™ Purified anti-human CD14, Pacific Blue™ anti-human CD14, APC/Cyanine7 anti-human CD14, Alexa Fluor® 700 anti-human CD14, PerCP/Cyanine5.5 anti-human CD14, Biotin anti-human CD14, Brilliant Violet 421™ anti-human CD14, Brilliant Violet 570™ anti-human CD14, Brilliant Violet 605™ anti-human CD14, Brilliant Violet 650™ anti-human CD14, Brilliant Violet 711™ anti-human CD14, Brilliant Violet 785™ anti-human CD14, Brilliant Violet 510™ anti-human CD14, Purified anti-human CD14 (Maxpar® Ready), PerCP anti-human CD14, PE/Dazzle™ 594 anti-human CD14, APC/Fire™ 750 anti-human CD14, TotalSeq™-A0081 anti-human CD14, TotalSeq™-B0081 anti-human CD14, TotalSeq™-C0081 anti-human CD14, PE/Cyanine5 anti-human CD14, TotalSeq™-D0081 anti-human CD14, GMP FITC anti-human CD14, GMP APC anti-human CD14, GMP PE anti-human CD14, GMP Pacific Blue™ anti-human CD14

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