

TotalSeq™-A0358 anti-human CD163 Antibody

Catalog# / Size	333635 / 10 µg
Clone	GHI/61
Regulatory Status	RUO
Workshop	VI M38
Other Names	GHI/61, M130, RM3/1, p155, Hemoglobin/Haptoglobin Complex Receptor, macrophage-associated antigen, ED2(rat)
Isotype	Mouse IgG1, κ
Barcode Sequence	GCTTCTCCTTCCTTA
Description	CD163 is a member of the group B scavenger receptor cysteine-rich superfamily, also known as GHI/61, M130, RM3/1, p155, hemoglobin-haptoglobin complex receptor, or macrophage-associated antigen. It is a 134 kD (non-reduced)/155 kD (reduced) glycoprotein primarily expressed on macrophages, Kupffer cells, monocytes, a subset of dendritic cells, and a subset of hematopoietic stem/progenitor cells. CD163 binds to haptoglobin-hemoglobin complex and TWEAK, and plays a role in clearing hemoglobin and regulating cytokine production by macrophages. Membrane CD163 can be cleaved by metalloproteinases (MMP), resulting in a soluble form. Elevated serum level of sCD163 has been implicated in many kinds of inflammatory diseases.

Product Details

Verified Reactivity	Human, Cynomolgus, Rhesus
Reported Reactivity	African Green
Antibody Type	Monoclonal
Host Species	Mouse
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	Clone GHI/61 binds to domain 7 of CD163. Additional reported applications (for the relevant formats) include: immunocytochemical staining, immunoprecipitation, western blot ¹ , and spatial biology (IBEX) ^{6,7} .

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 BAAAAAAAAAAAAAAAAAAAAAAAAAAAAA*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)

1. Pulford K, *et al.* 1992. *Immunology* 75:588. (ICC, IP, WB)
2. Law SK, *et al.* 1993. *Eur. J. Immunol.* 23:2320.
3. Madsen M, *et al.* 2004. *J. Biol. Chem.* 279:51561.
4. Kim WK, *et al.* 2006. *Am. J. Pathol.* 168:822. (FC)
5. Buttari B, *et al.* 2011. *Atherosclerosis.* 215:316. [PubMed](#)
6. Radtke AJ, *et al.* 2020. *Proc Natl Acad Sci USA.* 117:33455-33465. (SB) [PubMed](#)
7. Radtke AJ, *et al.* 2022. *Nat Protoc.* 17:378-401. (SB) [PubMed](#)

Product Citations

1. Witkowski MT, *et al.* 2020. *Cancer Cell.* 37:867. [PubMed](#)
2. Hao Y, *et al.* 2021. *Cell.* 184:3573. [PubMed](#)

RRID

AB_2750343 (BioLegend Cat. No. 333635)

Antigen Details

Structure	134 kD (non-reduced)/155 kD (reduced) glycoprotein, scavenger receptor superfamily
Distribution	Monocytes, macrophages, Kuffer cells, subset of dendritic cells, subset of hematopoietic stem/progenitor cells
Function	Clearance of haptoglobin-hemoglobin complex, regulation of cytokine production by macrophages
Ligand/Receptor	Haptoglobin-hemoglobin complex, TWEAK
Cell Type	Dendritic cells, Hematopoietic stem and progenitors, Macrophages, Monocytes
Biology Area	Cell Biology, Immunology, Innate Immunity, Neuroscience, Neuroscience Cell Markers
Molecular Family	CD Molecules
Antigen References	<ol style="list-style-type: none">1. Roth J, <i>et al.</i> 1994 <i>Transplantation.</i> 57:1272. Van den Heuvel MM, <i>et al.</i> 1999 <i>J. Leukoc. Biol.</i> 66:8583. Sulahian TH, <i>et al.</i> 2000 <i>Cytokines</i> 12:13124. Fabrick BO, <i>et al.</i> 2007 <i>J. Neuroimmunol.</i> 187:179
Gene ID	9332

Related Protocols

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

Other Formats

PerCP anti-human CD163, Purified anti-human CD163, Biotin anti-human CD163, PE anti-human CD163, PerCP/Cyanine5.5 anti-human CD163, APC anti-human CD163, Brilliant Violet 421™ anti-human CD163, PE/Cyanine7 anti-human CD163, Brilliant Violet 605™ anti-human CD163, FITC anti-human CD163, Alexa Fluor® 647 anti-human CD163, APC/Cyanine7 anti-human CD163, PE/Dazzle™ 594 anti-human CD163, Brilliant Violet 510™ anti-human CD163, Brilliant Violet 711™ anti-human CD163, Brilliant Violet 785™ anti-human CD163, APC/Fire™ 750 anti-human CD163, TotalSeq™-A0358 anti-human CD163, TotalSeq™-C0358 anti-human CD163, TotalSeq™-B0358 anti-human CD163, PE/Cyanine5 anti-human CD163, TotalSeq™-D0358 anti-human CD163

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