

## Brilliant Violet 605™ anti-human CD163 Antibody

<b>Catalog# / Size</b>	333615 / 25 tests 333616 / 100 tests
<b>Clone</b>	GHI/61
<b>Regulatory Status</b>	RUO
<b>Workshop</b>	VI M38
<b>Other Names</b>	GHI/61, M130, RM3/1, p155, Hemoglobin/Haptoglobin Complex Receptor, macrophage-associated antigen, ED2(rat)
<b>Isotype</b>	Mouse IgG1, κ
<b>Description</b>	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

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<b>Verified Reactivity</b>	Human, Cynomolgus, Rhesus
<b>Reported Reactivity</b>	African Green
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 605™ under optimal conditions.
<b>Concentration</b>	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.)
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">FC - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.

Brilliant Violet 605™ excites at 405 nm and emits at 603 nm. The bandpass filter 610/20 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. **Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel.** Refer to your instrument manual or manufacturer for support. Brilliant Violet 605™ is a trademark of Sirigen Group Ltd.

[Learn more about Brilliant Violet™.](#)

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<b>Excitation Laser</b>	Violet Laser (405 nm)
<b>Application Notes</b>	Clone GHI/61 binds to domain 7 of CD163. Additional reported applications (for the relevant formats) include: immunocytochemical staining, immunoprecipitation, western blot <sup>1</sup> , and spatial biology (IBEX) <sup>6,7</sup> .
<b>Application References</b>	<ol style="list-style-type: none"> <li>1. Pulford K, <i>et al.</i> 1992. <i>Immunology</i> 75:588. (ICC, IP, WB)</li> <li>2. Law SK, <i>et al.</i> 1993. <i>Eur. J. Immunol.</i> 23:2320.</li> <li>3. Madsen M, <i>et al.</i> 2004. <i>J. Biol. Chem.</i> 279:51561.</li> <li>4. Kim WK, <i>et al.</i> 2006. <i>Am. J. Pathol.</i> 168:822. (FC)</li> <li>5. Buttari B, <i>et al.</i> 2011. <i>Atherosclerosis.</i> 215:316. <a href="#">PubMed</a></li> <li>6. Radtke AJ, <i>et al.</i> 2020. <i>Proc Natl Acad Sci USA.</i> 117:33455-33465. (SB) <a href="#">PubMed</a></li> <li>7. Radtke AJ, <i>et al.</i> 2022. <i>Nat Protoc.</i> 17:378-401. (SB) <a href="#">PubMed</a></li> </ol>
<b>Product Citations</b>	<ol style="list-style-type: none"> <li>1. Weisberg SP, <i>et al.</i> 2020. <i>Cell Reports.</i> 29(12):3916-3932.e5.. <a href="#">PubMed</a></li> <li>2. Mehta AK, <i>et al.</i> 2021. <i>Nat Cancer.</i> 2:66. <a href="#">PubMed</a></li> <li>3. Mulder K, <i>et al.</i> 2021. <i>Immunity.</i> 54(8):1883-1900.e5. <a href="#">PubMed</a></li> <li>4. Sharma A, <i>et al.</i> 2020. <i>Cell.</i> 183(2):377-394.e21. <a href="#">PubMed</a></li> <li>5. Blaszczyk AM, <i>et al.</i> 2019. <i>J Diabetes Res.</i> 2019:8124563. <a href="#">PubMed</a></li> <li>6. Hilt ZT, <i>et al.</i> 2019. <i>JCI Insight.</i> 4:5. <a href="#">PubMed</a></li> <li>7. Dutertre CA, <i>et al.</i> 2020. <i>Immunity.</i> 51(3):573-589.e8.. <a href="#">PubMed</a></li> </ol>
<b>RRID</b>	<p>AB_2562712 (BioLegend Cat. No. 333615)</p> <p>AB_2616879 (BioLegend Cat. No. 333616)</p>

## Antigen Details

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<b>Structure</b>	134 kD (non-reduced)/155 kD (reduced) glycoprotein, scavenger receptor superfamily
<b>Distribution</b>	Monocytes, macrophages, Kuffer cells, subset of dendritic cells, subset of hematopoietic stem/progenitor cells
<b>Function</b>	Clearance of haptoglobin-hemoglobin complex, regulation of cytokine production by macrophages
<b>Ligand/Receptor</b>	Haptoglobin-hemoglobin complex, TWEAK
<b>Cell Type</b>	Dendritic cells, Hematopoietic stem and progenitors, Macrophages, Monocytes
<b>Biology Area</b>	Cell Biology, Immunology, Innate Immunity, Neuroscience, Neuroscience Cell Markers
<b>Molecular Family</b>	CD Molecules
<b>Antigen References</b>	<ol style="list-style-type: none"> <li>1. Roth J, <i>et al.</i> 1994 <i>Transplantation.</i> 57:127</li> <li>2. Van den Heuvel MM, <i>et al.</i> 1999 <i>J. Leukoc. Biol.</i> 66:858</li> <li>3. Sulahian TH, <i>et al.</i> 2000 <i>Cytokines</i> 12:1312</li> <li>4. Fabriek BO, <i>et al.</i> 2007 <i>J. Neuroimmunol.</i> 187:179</li> </ol>
<b>Gene ID</b>	<a href="#">9332</a>

## Related Protocols

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[Cell Surface Flow Cytometry Staining Protocol](#)

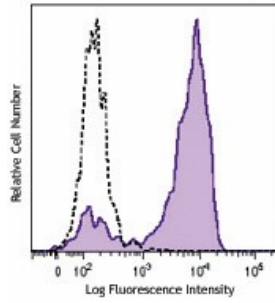
## Other Formats

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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

## Product Data

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Human peripheral blood monocytes were stained with CD163 (clone GH1/63) Brilliant Violet 605™ (filled histogram) or mouse IgG1, κ Brilliant Violet 605™ isotype control (open histogram).

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