

Brilliant Violet 711™ anti-human CD163 Antibody

Catalog# / Size	333629 / 25 tests 333630 / 100 tests
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
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 BSA (origin USA).
Preparation	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 711™ under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is ≤5 µl per million cells or 5 µl per 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

Brilliant Violet 711™ excites at 405 nm and emits at 711 nm. The bandpass filter 710/50 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 711™ is a trademark of Sirigen Group Ltd.

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Excitation Laser	Violet Laser (405 nm)
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} .
Application References	<ol style="list-style-type: none"> 1. Pulford K, <i>et al.</i> 1992. <i>Immunology</i> 75:588. (ICC, IP, WB) 2. Law SK, <i>et al.</i> 1993. <i>Eur. J. Immunol.</i> 23:2320. 3. Madsen M, <i>et al.</i> 2004. <i>J. Biol. Chem.</i> 279:51561. 4. Kim WK, <i>et al.</i> 2006. <i>Am. J. Pathol.</i> 168:822. (FC) 5. Buttari B, <i>et al.</i> 2011. <i>Atherosclerosis.</i> 215:316. PubMed 6. Radtke AJ, <i>et al.</i> 2020. <i>Proc Natl Acad Sci USA.</i> 117:33455-33465. (SB) PubMed 7. Radtke AJ, <i>et al.</i> 2022. <i>Nat Protoc.</i> 17:378-401. (SB) PubMed
(PubMed link indicates BioLegend citation)	
Product Citations	<ol style="list-style-type: none"> 1. Bourdely P, <i>et al.</i> 2020. <i>Immunity.</i> 53(2):335-352. PubMed 2. Halkias J, <i>et al.</i> 2019. <i>J Clin Invest.</i> 130:3562. PubMed 3. Cillo AR, <i>et al.</i> 2021. <i>Cell Rep Med.</i> 2:100476. PubMed
RRID	AB_2650971 (BioLegend Cat. No. 333629) AB_2650972 (BioLegend Cat. No. 333630)

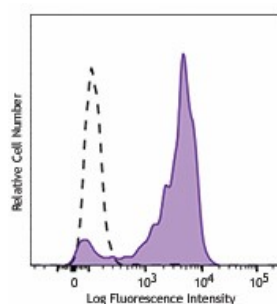
Antigen Details

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> 57:127 2. Van den Heuvel MM, <i>et al.</i> 1999 <i>J. Leukoc. Biol.</i> 66:858 3. Sulahian TH, <i>et al.</i> 2000 <i>Cytokines</i> 12:1312 4. Fabriek BO, <i>et al.</i> 2007 <i>J. Neuroimmunol.</i> 187:179
Gene ID	9332

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

Product Data



Human peripheral blood monocytes were stained with CD163 (clone GHI/63) Brilliant Violet 711™ (filled histogram) or mouse IgG1, κ Brilliant Violet 711™ isotype control (open histogram).

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