

CD163 Monoclonal Antibody (GHI/61), APC

Catalog NumberA15723

Product data sheet

Details		Species Reactivity	
Size	100 Tests	Species reactivity	Human
Host/Isotope	Mouse / IgG1, kappa	Published species	Human
Class	Monoclonal	Tested Applications	Dilution *
Type	Antibody	Flow Cytometry (Flow)	10 µL/1x10^6 cells
Clone	GHI/61	Published Applications	
Immunogen	Hairy cell leukemia cells	Flow Cytometry (Flow)	See 1 publications below
Conjugate	APC	* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.	
Form	Liquid		
Purification	Size-exclusion chromatography		
Storage buffer	PBS, pH 7.4, with 0.2% BSA		
Contains	15mM sodium azide		
Storage Conditions	4° C		

Background/Target Information

CD163 (M130 antigen, Ber-Mac3, Ki-M8, SM4) is a 130 kDa membrane glycoprotein, a member of the scavenger receptor cysteine-rich superfamily, and a receptor for the hemoglobin-haptoglobin complex. CD163 protects tissues from free hemoglobin-mediated oxidative damage, and may play a role in the uptake and recycling of iron, via endocytosis of hemoglobin/haptoglobin and subsequent breakdown of heme. CD163 is expressed exclusively on the cell surface of human monocytes and macrophages that evolve predominantly in the late phase of inflammation. Specifically, CD163 is present on all circulating monocytes and most tissue macrophages except those found in the mantle zone and germinal centers of lymphoid follicles, interdigitating reticulum cells and Langerhan's cells. CD163 is present on all CD14 positive monocytes, most CD64 positive monocytes, and shows higher expression on CD16 positive monocytes. CD163 is upregulated on mononuclear phagocytes by IL-10, IL-6 and dexamethasone. Lipopolysaccharide (LPS) and phorbol myristate acetate (PMA) both induce shedding of CD163 from the cell surface into plasma or cell supernatant. CD163 binds hemoglobin /haptoglobin complexes in a calcium-dependent and pH-dependent manner, and exhibits a higher affinity for complexes of hemoglobin and multimeric haptoglobin of HP1F phenotype than for complexes of hemoglobin and dimeric haptoglobin of HP1S phenotype. Further, CD163 also induces a cascade of intracellular signals that involves tyrosine kinase-dependent calcium mobilization, inositol triphosphate production and secretion of IL6 and CSF1.

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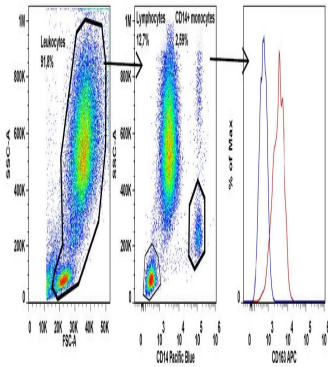
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CD163 Antibody (A15723) in Flow

Flow cytometry analysis (surface staining) of human peripheral blood using anti-human CD163 (clone GHI/61) APC Monoclonal antibody (Product # A15723). CD163 was detected on CD14+ monocytes, whereas CD14- lymphocytes were used as a negative control.



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PubMed References For CD163 Monoclonal Antibody (GHI/61), APC

1 Flow Cytometry References

Species / Dilution	Summary
	A15723 was used in Flow cytometry/Cell sorting to test the hypothesis that macrophage polarisation is altered in old compared to young skeletal muscle, possibly contributing to the poor satellite cell response observed in older muscle tissue.
Human / Not Cited	<p>FASEB journal : official publication of the Federation of American Societies for Experimental Biology (2019; 33: 10353)</p> <p>"An altered response in macrophage phenotype following damage in aged human skeletal muscle: implications for skeletal muscle repair."</p> <p>Author(s):Sorensen JR,Kaluhiokalani JP,Hafen PS,Deyhle MR,Parcell AC,Hyl Dahl RD</p> <p>PubMed Article URL:http://dx.doi.org/10.1096/fj.201900519R</p>

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