OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850
UNITED STATES
Phone: +1-888-267-4436
Fax: +1-301-340-8606
techsupport@origene.com

OriGene Technologies GmbH
Schillerstr. 5
32052 Herford
GERMANY
Phone: +49-5221-34606-0
Fax: +49-5221-34606-11
info-de@origene.com

BM4041B Monoclonal Antibody to CD163 - Biotin

Alternate names:	Hemoglobin scavenger receptor, M130, Macrophage marker, Scavenger receptor cysteine-rich type 1 protein M130
Quantity:	0.1 mg
Concentration:	0.2 mg/ml (after reconstitution)
Background:	CD163 is a scavenger receptor for the haemoglobin-haptoglobin complex, and is upregulated by glucocorticoids and IL-10. The extracellular portion of the receptor is regularly shed and can be found in the circulation. An important function of CD163 seems to be in the adhesion of monocytes to activated endothelial cells. CD163-positive cells include skin histiocytes, Kupffer cells, spleen macrophages of the red pulp, and some thymus macrophages. The antigen is also found abundantly in human term placenta, and regularly in acute and chronic inflammatory lesions.
Uniprot ID:	Q86VB7
NCBI:	NP_004235.3
GeneID:	9332
Host / Isotype:	Mouse / IgG1
Recommended Isotype Controls:	SM10B (for use in human samples)
Clone:	5C6-FAT
Immunogen:	Human CD163. The epitope has not been further characterized.
Format:	**State:** Lyophilized purified IgG fraction **Purification:** Affinity Chromatography **Buffer System:** Stock Solution containing PBS, pH 7.2 with 5 mg/ml BSA as a stabilizer and 0.09% Sodium Azide as a preservative **Label:** Biotin **Reconstitution:** Restore with 0.5 ml distilled water.
Applications:	**Immunohistochemistry on Frozen Sections:** 0.5 µg/ml (1/400). **Immunohistochemistry on Paraffin Sections:** 1 µg/ml. Proteinase K pretreatment for antigen retrieval is recommended. *Suggested Positive Control:* Human placenta. Has been described to work in **FACS** and **Western blots.** Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:

Clone 5C6 FAT recognizes CD163, a membrane glycoprotein on human monocytes and macrophages which is expressed in intermediate and late inflammatory stages.
Antigen distribution on isolated cells:
Monocytes, particularly after dexamethasone treatment or after 2-5 days in culture.
Does not react with lymphocytes, granulocytes or platelets.

Antigen Distribution

Tissue Sections: Positive staining can be observed in the skin (histiocytes), gut, Kupffer cells, few alveolar macrophages, a major population of macrophages in the placenta, varying degrees of macrophages in inflamed tissues, including tumorous tissue depending on the inflammatory stage. Red pulp, but not white pulp macrophages of the spleen, andcortical macrophages of the thymus are detected. Macrophages in the synovialis of patients with rheumatoid arthritis.
In alveolar macrophages and in Kupffer cells a double staining can be observed with monoclonal antibody BM4022 (clone 25F9) which is not the case in other tissues.
Isolated Cells: Monocytes, particularly after dexamethasone treatment or after 2-5 days in culture. Does not react with lymphocytes, granulocytes or platelets.
Species: Human. Negative In Pig.
Other species not tested.

Storage:

Prior to reconstitution store at 2-8°C.
Following reconstitution store undiluted at 2-8°C for one month
or (in aliquots) at -20°C for longer.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

Product Citations:

Purchased from Acris:
Unconjugated antibody is cited in:
1. Zaba LC, Cardinale I, Gilleaudeau P, Sullivan-Whalen M, Suárez-Fariñas M, Suárez Fariñas M, et al. Amelioration of epidermal hyperplasia by TNF inhibition is associated with reduced Th17 responses. J Exp Med. 2007 Dec 24;204(13):3183-94. Epub 2007 Nov 26. PubMed PMID: 18039949.

General Readings:

1. Högger P, Dreier J, Droste A, Buck F, Sorg C. Identification of the integral membrane protein RM3/1 on human monocytes as a glucocorticoid-inducible member of the scavenger receptor cysteine-rich family (CD163). J Immunol. 1998 Aug 15;161(4):1883-90. PubMed PMID: 9712057.

Pictures:

BM4041B CD163 antibody staining of Frozen Human Placenta Section (Clone 5C6-FAT)