Datasheet for ABIN741577

anti-CD163 antibody (AA 1001-1121) (FITC)

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Overview

Quantity:	100 µL
Target:	CD163
Binding Specificity:	AA 1001-1121
Reactivity:	Human, Mouse, Rat, Pig, Dog
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This CD163 antibody is conjugated to FITC
Application:	Western Blotting (WB), Flow Cytometry (FACS), Immunofluorescence (Cultured Cells) (IF (cc)), Immunofluorescence (Paraffin-embedded Sections) (IF (p))

Product Details

Immunogen:	KLH conjugated synthetic peptide derived from human CD163/M130
Isotype:	IgG
Cross-Reactivity:	Dog, Human, Mouse, Pig, Rat
Predicted Reactivity:	Horse
Purification:	Purified by Protein A.

Target Details

Target:	CD163
Alternative Name:	Cd163/M130 (CD163 Products)

Target Details

Background:	Synonyms: M13, MM13, Scavenger receptor cysteine-rich type 1 protein M13, Hemoglobin scavenger receptor, CD163, M130 Background: Acute phase-regulated receptor involved in clearance and endocytosis of hemoglobin/haptoglobin complexes by macrophages and may thereby protect tissues from free hemoglobin-mediated oxidative damage. May play a role in the uptake and recycling of iron, via endocytosis of hemoglobin/haptoglobin and subsequent breakdown of heme. Binds hemoglobin/haptoglobin complexes in a calcium-dependent and pH -dependent manner. Exhibits a higher affinity for complexes of hemoglobin and multimeric haptoglobin of HP*1F phenotype than for complexes of hemoglobin and dimeric haptoglobin of HP*1S phenotype. Induces a cascade of intracellular signals that involves tyrosine kinase-dependent calcium mobilization, inositol triphosphate production and secretion of IL6 and CSF1. Isoform 3 exhibits the higher capacity for ligand endocytosis and the more pronounced surface expression when expressed in cells. After shedding, the soluble form (sCD163) may play an anti-inflammatory role, and may be a valuable diagnostic parameter for monitoring macrophage activation in inflammatory conditions.
Gene ID:	9332
UniProt:	Q86VB7

Application Details

Application Notes:	FCM 1:20-100
	IF(IHC-P) 1:50-200
	IF(IHC-F) 1:50-200
	IF(ICC) 1:50-200

Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	1 μg/μL
Buffer:	Aqueous buffered solution containing 0.01M TBS (pH 7.4) with 1 % BSA, 0.03 % Proclin300 and 50 % Glycerol.
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be

Handling

	handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store at -20°C. Aliquot into multiple vials to avoid repeated freeze-thaw cycles.
Expiry Date:	12 months

Publications

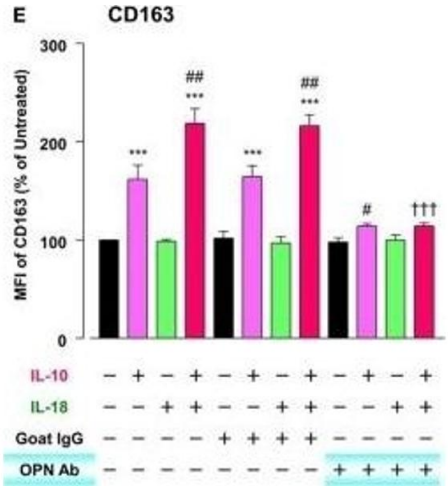
Product cited in:

Kobori, Hamasaki, Kitaura, Yamazaki, Nishinaka, Niwa, Nakao, Wake, Mori, Yoshino, Nishibori, Takahashi: "Interleukin-18 Amplifies Macrophage Polarization and Morphological Alteration, Leading to Excessive Angiogenesis." in: **Frontiers in immunology**, Vol. 9, pp. 334, (2019) (PubMed).

Oh, Riek, Zhang, Williams, Darwech, Bernal-Mizrachi: "Deletion of JNK2 prevents vitamin-D-deficiency-induced hypertension and atherosclerosis in mice." in: **The Journal of steroid biochemistry and molecular biology**, Vol. 177, pp. 179-186, (2017) (PubMed).

Weng, Sprague, Oh, Riek, Chin, Garcia, Bernal-Mizrachi: "Vitamin D deficiency induces high blood pressure and accelerates atherosclerosis in mice." in: **PLoS ONE**, Vol. 8, Issue 1, pp. e54625, (2013) (PubMed).

Images

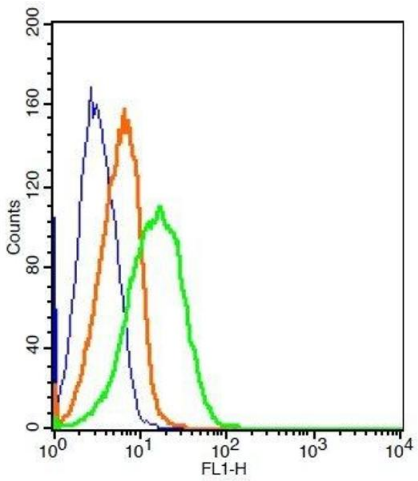


Flow Cytometry

Image 1. Osteopontin (OPN) drives enhancement in macrophage (Mφ) M2 polarization and angiogenic capacity. (A) Representative images of protein expression profiles obtained by comprehensive protein array in each Mφ subset. Red arrowheads indicate OPN. (B) The mRNA expression level of Spp1 relative to glyceraldehyde-3-phosphate dehydrogenase (Gapdh) was analyzed by real-time reverse transcription polymerase chain reaction in each Mφ subset and was normalized to Mφ (-), n=6 [***p<0.001 vs. untreated, #p<0.05 vs. interleukin (IL)-10 alone]. (C) The protein expression level of OPN relative to

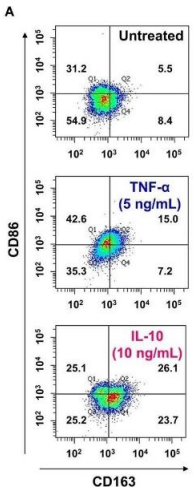
GAPDH was measured by western blotting and was normalized to Mφ (-), n=10. Lower panels are typical images of each protein (***p<0.001 vs. untreated, #p<0.05 vs. IL-10 alone). (D) Representative confocal laser scanning immunofluorescence overlay images of OPN (red) and DAPI (blue) in each Mφ subset. Scale bar represents 20μm. Images in the right row are magnified regions from white or yellow rectangles in the panels of corresponding groups. Scale bar represents 10μm. (E) Relative mean fluorescence intensity (MFI) of CD163 was measured by FACS analysis in each Mφ subset. An anti-OPN antibody (Ab) and its isotype-matched control Ab were used at 3 μg/mL, n=4 (***p<0.001 vs. untreated, ##p<0.01, #p<0.05 vs. IL-10 alone, p<0.001 vs. IL-10+IL-18). (F) The total areas and lengths of tube-like structures were determined by the Matrigel tube formation assay where b.End5 was cocultured with each Mφ subset, n=12 (***p<0.001, **p<0.01, *p<0.05 vs. untreated, #p<0.05 vs. IL-10 alone, p<0.001 vs. IL-10+IL-18). All data are expressed as means±SEM and were analyzed by a one-way ANOVA followed by Tukey's test. - figure provided by CiteAb.

Source: PMID29559970



Flow Cytometry

Image 2. Mouse splenocytes probed with Rabbit Anti-CD163/M130 Polyclonal Antibody, FITC Conjugated (ABIN741577) at 1:10 for 30 minutes compared to control unstained cells (blue) and isotype control.



Flow Cytometry

Image 3. Interleukin (IL)-18 amplifies macrophage (Mφ) M2 polarization and angiogenic capacity. (A) Representative FACS density plots for the expression of CD86 and CD163 in each Mφ subset. Upper, Mφ (-), middle, Mφ [tumor necrosis factor (TNF)-α], lower, Mφ (IL-10). The numbers in each quartile of the plots are percentages of each cell population. (B) Relative mean fluorescence intensities (MFIs) of CD54, CD86, CD163, and CD206 in each Mφ subset were measured by FACS analysis, n=3 (***p<0.001, *p<0.05 vs. untreated, ##p<0.01 vs. IL-10 alone). (C) Relative MFI of IL-18Rβ in each Mφ subset was determined by FACS analysis, n=4 (***p<0.001 vs. untreated, ###p<0.001 vs. IL-10 alone). (D,E) The total areas and lengths of tube-like structures measured by the Matrigel tube formation assay where b.End5 was cocultured with each Mφ subset, n=6 (***p<0.001, **p<0.01, *p<0.05 vs. untreated, ##p<0.01, #p<0.05 vs. IL-10 alone). (F) Representative pictures of tube-like structures visualized by calcein acetoxymethylester staining. Scale bar represents 100μm. All data are presented as means±SEM and were analyzed by a one-way ANOVA followed by Tukey's test. - figure provided by CiteAb. Source: PMID29559970

Please check the product details page for more images. Overall 4 images are available for ABIN741577.