SANTA CRUZ BIOTECHNOLOGY, INC.

# CD206 (15-2): sc-58986

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*The Power to Question*

## BACKGROUND

CD206, also known as macrophage mannose receptor type C (MMR or MRC1), is a type I membrane receptor protein. It is an phagocytic and endocytic receptor that can recognize carbohydrate ligands in target molecules. The extracellular portion of the protein includes eight C-type carbohydrate recognition domains (CRD) which are clustered together to achieve higher affinity binding to saccharides. CD206 is found on macrophages and on endothelial cells of the liver and is the only known example of a C-type lectin that contains multiple C-type CRDs. CD206 mediates the endocytosis of glycoproteins by macrophages and binds high-mannose structures on the surface of potentially pathogenic viruses, fungi and bacteria enabling them to be neutralized by phagocytic engulfment. During inflammation, CD206 is crucial for rapid clearance of several mannose-bearing serum glycoproteins but does not regulate the initiation of inflammation. CD206 is primarily expressed in mature tissue macrophages and immature dendritic cells, as well as hepatic and lymphatic endothelial cells, retinal pigmental epithelium (RPE) and mesangial cells.

## CHROMOSOMAL LOCATION

Genetic locus: MRC1 (human) mapping to 10p12.33; Mrc1 (mouse) mapping to 2 A2.

## SOURCE

CD206 (15-2) is a mouse monoclonal antibody raised against CD206 of human origin.

## PRODUCT

Each vial contains 200 µg $IgG_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD206 (15-2) is available conjugated to agarose (sc-58986 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-58986 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-58986 PE), fluorescein (sc-58986 FITC), Alexa Fluor® 488 (sc-58986 AF488), Alexa Fluor® 546 (sc-58986 AF546), Alexa Fluor® 594 (sc-58986 AF594) or Alexa Fluor® 647 (sc-58986 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-58986 AF680) or Alexa Fluor® 790 (sc-58986 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

CD206 (15-2) is recommended for detection of CD206 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x $10^6$ cells).

Suitable for use as control antibody for CD206 siRNA (h): sc-45360, CD206 siRNA (m): sc-45361, CD206 shRNA Plasmid (h): sc-45360-SH, CD206 shRNA Plasmid (m): sc-45361-SH, CD206 shRNA (h) Lentiviral Particles: sc-45360-V and CD206 shRNA (m) Lentiviral Particles: sc-45361-V.

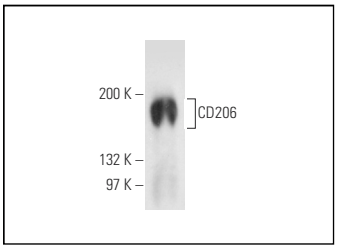
Molecular Weight of CD206: 160-170 kDa.

Positive Controls: human liver extract: sc-363766, human kidney extract: sc-363764 or human lung extract: sc-363767.

## STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## DATA




CD206 (15-2): sc-58986. Western blot analysis of CD206 expression in human liver tissue extract.

## SELECT PRODUCT CITATIONS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2. Swaminathan, S., et al. 2013. Gadolinium contrast agent-induced $CD163^+$ $ferroportin^+$ osteogenic cells in nephrogenic systemic fibrosis. Am. J. Pathol. 183: 796-807.
3. Shao, L.N., et al. 2016. Effects of autophagy regulation of tumor-associated macrophages on radiosensitivity of colorectal cancer cells. Mol. Med. Rep. 13: 2661-2670.
4. Luo, Q., et al. 2018. Interleukin-33 protects ischemic brain injury by regulating specific microglial activities. Neuroscience 385: 75-89.
5. Wan, X., et al. 2019. Origin of monocytes/macrophages contributing to chronic inflammation in chagas disease: SIRT1 inhibition of FAK-NFκB-dependent proliferation and proinflammatory activation of macrophages. Cells 9: 80.
6. Choudhuri, S., et al. 2020. PARP1-cGAS-NFκB pathway of proinflammatory macrophage activation by extracellular vesicles released during *Trypanosoma cruzi* infection and Chagas disease. PLoS Pathog. 16: e1008474.
7. Liang, T., et al. 2021. Galectin-9 promotes neuronal restoration via binding TLR-4 in a rat intracerebral hemorrhage model. Neuromolecular Med. 23: 267-284.
8. Yuan, Q., et al. 2021. MyD88 in myofibroblasts enhances colitis-associated tumorigenesis via promoting macrophage M2 polarization. Cell Rep. 34: 108724.
9. Ullah, H.M.A., et al. 2021. Nogo-A is critical for pro-inflammatory gene regulation in myocytes and macrophages. Cells 10: 282.


## RESEARCH USE

For research use only, not for use in diagnostic procedures.