

CD206 (H-300): sc-48758

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 pigmented epithelium (RPE) and mesangial cells.

REFERENCES

1. Kim S.J., et al. 1992. Organization of the gene encoding the human macrophage mannose receptor (MRC1). *Genomics* 14: 721-727.
2. Harris N., et al. 1992. Characterization of the murine macrophage mannose receptor: demonstration that the downregulation of receptor expression mediated by interferon- γ occurs at the level of transcription. *Blood* 80: 2363-2373.
3. Taylor M.E., et al. 1992. Contribution to ligand binding by multiple carbohydrate-recognition domains in the macrophage mannose receptor. *J. Biol. Chem.* 267: 1719-1726.
4. Eichbaum Q., et al. 1994. Assignment of the human macrophage mannose receptor gene (MRC1) to 10p13 by *in situ* hybridization and PCR-based somatic cell hybrid mapping. *Genomics* 22: 656-658.

CHROMOSOMAL LOCATION

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

SOURCE

CD206 (H-300) is a rabbit polyclonal antibody raised against amino acids 1090-1389 mapping within an extracellular domain of CD206 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

CD206 (H-300) 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 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CD206 (H-300) is also recommended for detection of CD206 in additional species, including equine and porcine.

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.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Vaughn, C.N., et al. 2013. Cellular neuroinflammation in a lateral forceps compression model of spinal cord injury. *Anat. Rec.* 296: 1229-1246.

RESEARCH USE

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



Try **CD206 (D-1): sc-376108** or **CD206 (C-10): sc-376232**, our highly recommended monoclonal alternatives to CD206 (H-300). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **CD206 (D-1): sc-376108**.