SANTA CRUZ BIOTECHNOLOGY, INC.

CD68 (ED1): sc-59103

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

CD68, which is homologous to the mouse antigen macrosialin, belongs to a family of acidic, highly glycosylated lysosomal glycoproteins (LGPs) that includes lamp-1 and lamp-2. CD68 is found in cytoplasmic granules and in the cytoplasm of various non-hematopoietic tissues including liver and kidney tubules and glomeruli. CD68 is also found, to a lesser extent, on the surface of macrophages, monocytes, neutrophils, basophils and large lymphocytes. LGPs are major components of lysosomal membranes and may act to protect the membranes from attack by hydrolases.

REFERENCES

1. Pulford, K.A., et al. 1990. Distribution of the CD68 macrophage/myeloid associated antigen. Int. Immunol. 2: 973-980.
2. Fukuda, M. 1991. Lysosomal membrane glycoproteins. Structure, biosynthesis, and intracellular trafficking. J. Biol. Chem. 266: 21327-21330.
3. Holness, C.L. and Simmons, D.L. 1993. Molecular cloning of CD68, a human macrophage marker related to lysosomal glycoproteins. Blood 81: 1607-1613.

CHROMOSOMAL LOCATION

Genetic locus: Cd68 (mouse) mapping to 11 B3.

SOURCE

CD68 (ED1) is a mouse monoclonal antibody raised against spleen cells of rat origin.

PRODUCT

Each vial contains 100 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

CD68 (ED1) is recommended for detection of CD68 of mouse and rat 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), immunohistochemistry (including paraffin-embedded sections) (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 CD68 siRNA (m): sc-35020, CD68 shRNA Plasmid (m): sc-35020-SH and CD68 shRNA (m) Lentiviral Particles: sc-35020-V.

Molecular Weight of CD68 highly glycosylated protein: 75-110 kDa.

Positive Controls: rat spleen extract: sc-2397.

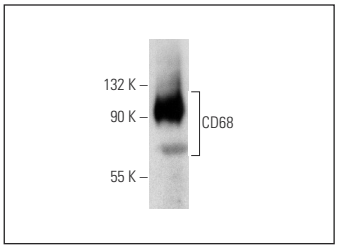
STORAGE

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

RESEARCH USE

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

DATA



CD68 (ED1): sc-59103. Western blot analysis of CD68 expression in rat spleen tissue extract.

SELECT PRODUCT CITATIONS

1. Malcolm, K.C., et al. 1994. Hemin therapy improves kidney function in male streptozotocin-induced diabetic rats: role of the heme oxygenase/atrial natriuretic peptide/adiponectin axis. J. Biol. Chem. 269: 25951-25954.
2. Ferreyra, C., et al. 2013. Preconditioning with triiodothyronine improves the clinical signs and acute tubular necrosis induced by ischemia/reperfusion in rats. PLoS ONE 8: e74960.
3. Zhang, X.L., et al. 2014. Vitamin D prevents podocyte injury via regulation of macrophage M_1/M_2 phenotype in diabetic nephropathy rats. Endocrinology 155: 4939-4950.
4. Ndisang, J.F. and Tiwari, S. 2014. Mechanisms by which heme oxygenase rescue renal dysfunction in obesity. Redox Biol. 2C: 1029-1037.
5. Wu, J., et al. 2014. Peripheral blood CD8ααα+CD11c+MHC-II+CD3- cells attenuate autoimmune glomerulonephritis in rats. Kidney Int. 85: 1078-1090.
6. Ndisang, J.F. and Tiwari, S. 2015. Featured article: induction of heme oxygenase with hemin improves pericardial adipocyte morphology and function in obese Zucker rats by enhancing proteins of regeneration. Exp. Biol. Med. 240: 45-57.
7. Gonzalez-Rubio, S., et al. 2015. GCDCA down-regulates gene expression by increasing Sp1 binding to the NOS-3 promoter in an oxidative stress dependent manner. Biochem. Pharmacol. 96: 39-51.
8. Parmaksiz, M., et al. 2015. Decellularization of bovine small intestinal submucosa and its use for the healing of a critical-sized full-thickness skin defect, alone and in combination with stem cells, in a small rodent model. J. Tissue Eng. Regen. Med. E-published.

CONJUGATES

See **CD68 (KP1): sc-20060** for CD68 antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.