SANTA CRUZ BIOTECHNOLOGY, INC.

CD68 (3F103): sc-70761

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 (human) mapping to 17p13.1; Cd68 (mouse) mapping to 11 B3.

SOURCE

CD68 (3F103) is a mouse monoclonal antibody raised against a subcellular fraction of human alveolar macrophages.

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.

APPLICATIONS

CD68 (3F103) is recommended for detection of CD68 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), 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 (h): sc-35019, CD68 siRNA (m): sc-35020, CD68 shRNA Plasmid (h): sc-35019-SH, CD68 shRNA Plasmid (m): sc-35020-SH, CD68 shRNA (h) Lentiviral Particles: sc-35019-V and CD68 shRNA (m) Lentiviral Particles: sc-35020-V.

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

Positive Controls: AML-193 whole cell lysate: sc-364182, K-562 whole cell lysate: sc-2203 or U-937 cell lysate: sc-2239.

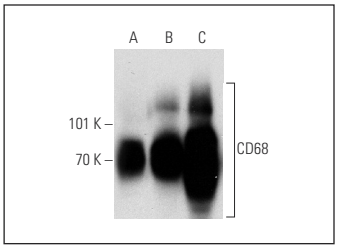
RESEARCH USE

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

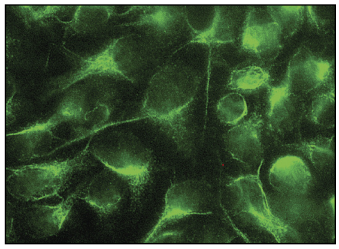
STORAGE

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

DATA



CD68 (3F103): sc-70761. Western blot analysis of CD68 expression in K-562 (**A**), U-937 (**B**) and AML-193 (**C**) whole cell lysates.



CD68 (3F103): sc-70761. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization.

SELECT PRODUCT CITATIONS

1. Fotheringham, J., et al. 2007. Association of human herpes-virus-6B with mesial temporal lobe epilepsy. PLoS Med. 4: e180.
2. Wang, J.G., et al. 2012. Clinicopathologic analysis of cardiac myxomas: Seven years' experience with 61 patients. J. Thorac. Dis. 4: 272-283.
3. Castanedo-Cazares, J.P., et al. 2013. Topical niacinamide 4% and desonide 0.05% for treatment of axillary hyperpigmentation: a randomized, double-blind, placebo-controlled study. Clin. Cosmet. Investig. Dermatol. 6: 29-36.
4. Liu, J., et al. 2015. Adhesion of monocytes to periodontal fibroblasts requires activation of NOD1/2- and TLR4-mediated LFA-1 and VLA-4. Arch. Oral Biol. 60: 834-844.
5. Rodriguez-Arambula, A., et al. 2015. CD4, IL-17, and COX-2 are associated with subclinical inflammation in malar melasma. Am. J. Dermatopathol. 37: 761-766.
6. Liu, Y., et al. 2015. Expression of IL-17A, E, and F and their receptors in human prostatic cancer: comparison with benign prostatic hyperplasia. Prostate 75: 1844-1856.
7. Xu, W., et al. 2016. Dihydroartemisinin protects against alcoholic liver injury through alleviating hepatocyte steatosis in a farnesoid X receptor-dependent manner. Toxicol. Appl. Pharmacol. 315: 23-34.
8. Bell, C.C., et al. 2016. Characterization of primary human hepatocyte spheroids as a model system for drug-induced liver injury, liver function and disease. Sci. Rep. 6: 25187.
9. Langley, S.R., et al. 2017. Extracellular matrix proteomics identifies molecular signature of symptomatic carotid plaques. J. Clin. Invest. 127: 1546-1560.

CONJUGATES

See **CD68 (KP1): sc-20060** for CD68 antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488, Alexa Fluor® 546, Alexa Fluor® 594, Alexa Fluor® 647, Alexa Fluor® 680 and Alexa Fluor® 790.