

CD68 (3F103): sc-70761

BACKGROUND

CD68, which is homologous to the mouse antigen macrophage, 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 IgG₁ 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 10⁶ 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 highly glycosylated CD68 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.

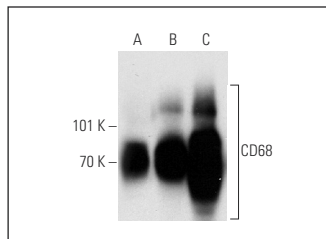
RESEARCH USE

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

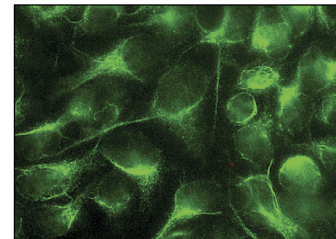
STORAGE

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. Ostalska-Nowicka, D., et al. 2009. Expression of galectin-3 in nephrotic syndrome glomerulopathies in children. *Folia Histochem. Cytobiol.* 47: 315-322.
3. Shamji, M.F., et al. 2010. Proinflammatory cytokine expression profile in degenerated and herniated human intervertebral disc tissues. *Arthritis Rheum.* 62: 1974-1982.
4. Didangelos, A., et al. 2011. Extracellular matrix composition and remodeling in human abdominal aortic aneurysms: a proteomics approach. *Mol. Cell. Proteomics* 10: M111.008128.
5. Wang, J.G., et al. 2012. Clinicopathologic analysis of cardiac myxomas: Seven years' experience with 61 patients. *J. Thorac. Dis.* 4: 272-283.
6. Castaneda-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.
7. 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.
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, and Alexa Fluor[®] 488, 546, 594, 647, 680 and 790.