SANTA CRUZ BIOTECHNOLOGY, INC.

CD68 (E-11): sc-17832

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.

CHROMOSOMAL LOCATION

Genetic locus: CD68 (human) mapping to 17p13.1.

SOURCE

CD68 (E-11) is a mouse monoclonal antibody raised against amino acids 100-354 of CD68 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.

CD68 (E-11) is available conjugated to agarose (sc-17832 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-17832 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-17832 PE), fluorescein (sc-17832 FITC), Alexa Fluor® 488 (sc-17832 AF488), Alexa Fluor® 546 (sc-17832 AF546), Alexa Fluor® 594 (sc-17832 AF594) or Alexa Fluor® 647 (sc-17832 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-17832 AF680) or Alexa Fluor® 790 (sc-17832 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

CD68 (E-11) is recommended for detection of CD68 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1,000), 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), flow cytometry (1 µg per 1 x 10^6 cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CD68 siRNA (h): sc-35019, CD68 shRNA Plasmid (h): sc-35019-SH and CD68 shRNA (h) Lentiviral Particles: sc-35019-V.

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

Positive Controls: NCI-H226 whole cell lysate: sc-364256, THP-1 cell lysate: sc-2238 or HL-60 whole cell lysate: sc-2209.

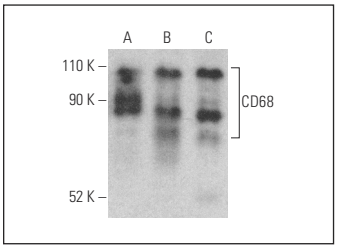
STORAGE

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

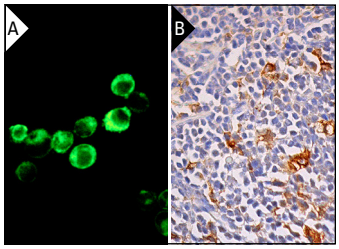
RESEARCH USE

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

DATA



CD68 (E-11) HRP: sc-17832 HRP. Direct western blot analysis of CD68 expression in THP-1 (**A**), HL-60 (**B**) and NCI-H226 (**C**) whole cell lysates



CD68 (E-11): sc-17832. Immunofluorescence staining of methanol-fixed THP-1 cells showing cytoplasmic and membrane localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human lymph node tissue showing cytoplasmic staining of subset of cells in non-germinal center (**B**).

SELECT PRODUCT CITATIONS

1. Gelman, B.B. and Nguyen, T.P. 2010. Synaptic proteins linked to HIV-1 infection and immunoproteasome induction: proteomic analysis of human synaptosomes. J. Neuroimmune Pharmacol. 5: 92-102.
2. McNally, A.K. and Anderson, J.M. 2011. Foreign body-type multinucleated giant cells induced by interleukin-4 express select lymphocyte co-stimulatory molecules and are phenotypically distinct from osteoclasts and dendritic cells. Exp. Mol. Pathol. 91: 673-681.
3. Su, S., et al. 2015. MiR-142-5p and miR-130a-3p are regulated by IL-4 and IL-13 and control profibrogenic macrophage program. Nat. Commun. 6: 8523.
4. Aroor, A.R., et al. 2017. Dipeptidyl peptidase-4 (DPP-4) inhibition with linagliptin reduces western diet-induced myocardial TRAF3IP2 expression, inflammation and fibrosis in female mice. Cardiovasc. Diabetol. 16: 61.
5. Gao, L., et al. 2018. Tumor associated macrophages induce epithelial to mesenchymal transition via the EGFR/ERK1/2 pathway in head and neck squamous cell carcinoma. Oncol. Rep. 40: 2558-2572.
6. Wang, Y., et al. 2020. MD2 activation by direct AGE interaction drives inflammatory diabetic cardiomyopathy. Nat. Commun. 11: 2148.
7. Chen, L., et al. 2021. Kdm2a deficiency in macrophages enhances thermogenesis to protect mice against HFD-induced obesity by enhancing H3K36me2 at the Pparg locus. Cell Death Differ. 28: 1880-1899.
8. Tian, X., et al. 2022. Tumor necrosis factor-stimulated gene-6-a new serum identification marker to identify severe and symptomatic carotid artery stenosis. Pathol. Res. Pract. 232: 153838.

PROTOCOLS

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