SANTA CRUZ BIOTECHNOLOGY, INC.

Integrin αM (44): sc-1186

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Integrin αM, also designated complement component receptor-3 α, CD11b (p170), macrophage antigen α polypeptide, cell surface glycoprotein Mac-1 α subunit, MAC1A, MO1A and ITGAM) is a cell adhesion molecule that acts as a receptor for cell surface ligands such as intracellular adhesion molecules (ICAMs) or soluble ligands. Integrins are heterodimeric proteins that contain an α chain and β chain. Integrin αM combines with the Integrin β2 to form a leukocyte-specific integrin referred to as macrophage receptor 1 (Mac-1), or inactivated-C3b (iC3b) receptor 3 (CR3). Integrin αM/β2 is important in the adherence of neutrophils and monocytes to stimulated endothelium, and also in the phagocytosis of complement coated particles.

CHROMOSOMAL LOCATION

Genetic locus: ITGAM (human) mapping to 16p11.2; Itgam (mouse) mapping to 7 F3.

SOURCE

Integrin αM (44) is a mouse monoclonal antibody raised against Integrin αM from rheumatoid synovial cells and monocytes 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.

Integrin αM (44) is available conjugated to agarose (sc-1186 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-1186 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-1186 PE), fluorescein (sc-1186 FITC), Alexa Fluor® 488 (sc-1186 AF488), Alexa Fluor® 546 (sc-1186 AF546), Alexa Fluor® 594 (sc-1186 AF594) or Alexa Fluor® 647 (sc-1186 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-1186 AF680) or Alexa Fluor® 790 (sc-1186 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Integrin αM (44) is recommended for detection of Integrin αM 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 Integrin αM siRNA (h): sc-37261, Integrin αM siRNA (m): sc-35693, Integrin αM shRNA Plasmid (h): sc-37261-SH, Integrin αM shRNA Plasmid (m): sc-35693-SH, Integrin αM shRNA (h) Lentiviral Particles: sc-37261-V and Integrin αM shRNA (m) Lentiviral Particles: sc-35693-V.

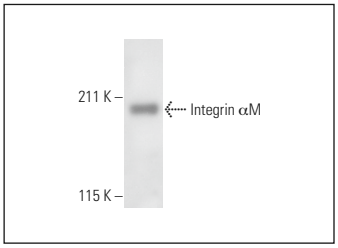
Molecular Weight of Integrin αM: 170 kDa.

Positive Controls: human PBL whole cell lysate.

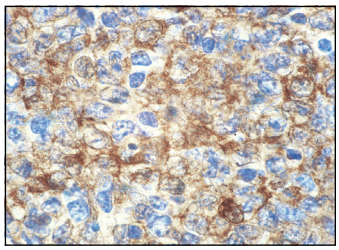
STORAGE

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

DATA



Western blot analysis of Integrin αM expression in human PBL whole cell lysate immunoprecipitated with Integrin αM (44): sc-1186 and detected with Integrin αM (H-61): sc-28664.



Integrin αM (44): sc-1186. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human lymphoma showing membrane and cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Hmama, Z., et al. 1999. 1α, 25-dihydroxyvitamin D_3-induced myeloid cell differentiation is regulated by a vitamin D receptor-phosphatidylinositol 3-kinase signaling complex. J. Exp. Med. 190: 1583-1594.
2. Osicka, R., et al. 2015. *Bordetella* adenylate cyclase toxin is a unique ligand of the integrin complement receptor 3. Elife 4: e10766.
3. Schrimpf, C., et al. 2016. Differentiation of induced pluripotent stem cell-derived neutrophil granulocytes from common marmoset monkey *(Callithrix jacchus).* Transfusion 57: 60-69.
4. Adamski, V., et al. 2017. Isolation and characterization of fast-migrating human glioma cells in the progression of malignant gliomas. Oncol. Res. 25: 341-353.
5. Liu, H., et al. 2018. PRDM4 mediates YAP-induced cell invasion by activating leukocyte-specific Integrin β2 expression. EMBO Rep. 19: e45180.
6. Wang, J.Q., et al. 2019. PARG regulates the proliferation and differentiation of DCs and T cells via PARP/NFκB in tumour metastases of colon carcinoma. Oncol. Rep. 41: 2657-2666.
7. Mehta, S., et al. 2020. Exposure of cigarette smoke condensate activates NLRP3 inflammasome in THP-1 cells in a stage-specific manner: an underlying role of innate immunity in atherosclerosis. Cell. Signal. 72: 109645.
8. Buachan, P., et al. 2021. Inhibitory effects of terrein on lung cancer cell metastasis and angiogenesis. Oncol. Rep. 45: 94.
9. Krasniewski, L.K., et al. 2022. Single-cell analysis of skeletal muscle macrophages reveals age-associated functional subpopulations. Elife 11: e77974.
10. Zheng, D., et al. 2023. Ac-YVAD-cmk ameliorated sevoflurane-induced cognitive dysfunction and revised mitophagy impairment. PLoS ONE 18: e0280914.

RESEARCH USE

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