SANTA CRUZ BIOTECHNOLOGY, INC.

Integrin αM (A-8): sc-515923

BACKGROUND

Integrin αM, also designated complement component receptor-3 α, CD11b (p170), macrophage antigen a polypeptide, cell surface glycoprotein Mac-1 a 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.

REFERENCES

1. Nathan, C., et al. 1990. Tumor necrosis factor and CD11/CD18 (β 2) Integrins act synergistically to lower cAMP in human neutrophils. J. Cell Biol. 111: 2171-2181.
2. Li, R., et al. 1995. A peptide derived from the intercellular adhesion molecule-2 regulates the avidity of the leukocyte Integrins CD11b/CD18 and CD11c/CD18. J. Cell Biol. 129: 1143-1153.
3. Nueda, A., et al. 1995. Hematopoietic cell-type-dependent regulation of leukocyte Integrin functional activity: CD11b and CD11c expression inhibits LFA-1-dependent aggregation of differentiatied U937 cells. Cell. Immunol. 164: 163-169.
4. Walzog, B., et al. 1995. The leukocyte Integrin Mac-1 (CD11b/CD18) contributes to binding of human granulocytes to collagen. Exp. Cell Res. 218: 28-38.

CHROMOSOMAL LOCATION

Genetic locus: ITGAM (human) mapping to 16p11.2.

SOURCE

Integrin αM (A-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1128-1152 at the C-terminus of Integrin αM 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 (A-8) is available conjugated to agarose (sc-515923 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515923 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515923 PE), fluorescein (sc-515923 FITC), Alexa Fluor® 488 (sc-515923 AF488), Alexa Fluor® 546 (sc-515923 AF546), Alexa Fluor® 594 (sc-515923 AF594) or Alexa Fluor® 647 (sc-515923 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515923 AF680) or Alexa Fluor® 790 (sc-515923 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

Integrin αM (A-8) is recommended for detection of Integrin αM of human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Integrin αM siRNA (h): sc-37261, Integrin αM shRNA Plasmid (h): sc-37261-SH and Integrin αM shRNA (h) Lentiviral Particles: sc-37261-V.

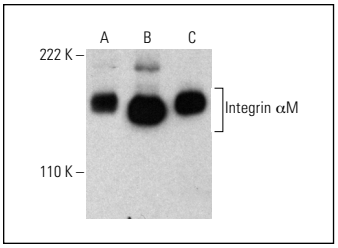
Molecular Weight of Integrin αM: 170 kDa.

Positive Controls: THP-1 cell lysate: sc-2238, TF-1 cell lysate: sc-2412 or HL-60 whole cell lysate: sc-2209.

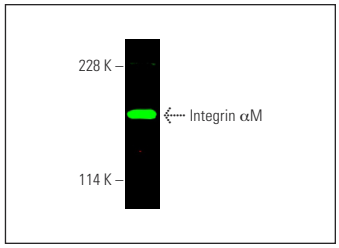
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Integrin αM (A-8): sc-515923. Western blot analysis of Integrin αM expression in THP-1 (**A**), TF-1 (**B**) and HL-60 (**C**) whole cell lysates.



Integrin αM (A-8): sc-515923. Near-infrared western blot analysis of Integrin αM expression in TF-1 whole cell lysate. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 680: sc-516180.

SELECT PRODUCT CITATIONS

1. Liu, F., et al. 2019. T cell-derived soluble glycoprotein GPIbα mediates PGE_2 production in human monocytes activated with the vaccine adjuvant MDP. Sci. Signal. 12: eaat6023.
2. Branscome, H., et al. 2022. Retroviral infection of human neurospheres and use of stem Cell EVs to repair cellular damage. Sci. Rep. 12: 2019.

RESEARCH USE

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