SANTA CRUZ BIOTECHNOLOGY, INC.

Integrin αX (B-6): sc-46676

The Power to Question

BACKGROUND

Integrin αX (CD11C, leukocyte surface antigen p150,95, CR4, Axb2) is a type 1 transmembrane protein that traditionally combines with β2 chain to form a leukocyte-specific integrin known as inactivated-C3b (iC3b) receptor 4 (CR4). Integrin αX/β2 shares similar properties of the αM/β2 Integrin in mediating adherence of neutrophils and monocytes to stimulated endothelial cells, and in phagocytosis of complement coated particles. Abnormal expression of Integrin αX is characteristic of hairy cell leukemia (HCL) and is dependent upon activation of proto-oncogenes Ras and JunD. Proteins and DNA elements that influence transcription of Integrin αX include Sp1 and Sp1-like factors, AP-1 family, C/EBP, Oct-2 and PU.1. Integrin αX is present on monocyte derivative dendritic cells (DCs), macrophages and NK cells. Upon activation, DCs present in skin (Langerhans cells), lining of nose, lung, stomach, intestine and blood can migrate to lymphoid tissues and interact with T and B cells to initiate and shape the immune response.

CHROMOSOMAL LOCATION

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

SOURCE

Integrin αX (B-6) is a mouse monoclonal antibody raised against amino acids 613-680 of Integrin αX 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 αX (B-6) is available conjugated to agarose (sc-46676 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-46676 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-46676 PE), fluorescein (sc-46676 FITC), Alexa Fluor® 488 (sc-46676 AF488), Alexa Fluor® 546 (sc-46676 AF546), Alexa Fluor® 594 (sc-46676 AF594) or Alexa Fluor® 647 (sc-46676 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-46676 AF680) or Alexa Fluor® 790 (sc-46676 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Integrin αX (B-6) is recommended for detection of Integrin αX of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:10000), 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Integrin αXsiRNA (h): sc-35695, Integrin αX shRNA Plasmid (h): sc-35695-SH and Integrin αX shRNA (h) Lentiviral Particles: sc-35695-V.

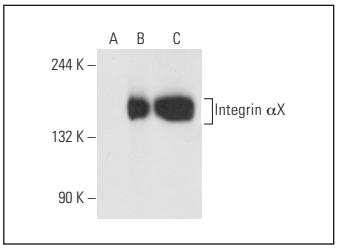
Molecular Weight of Integrin αX: 145 kDa.

Positive Controls: AML-193 whole cell lysate: sc-364182, HL-60 whole cell lysate: sc-2209 or Integrin αX (h2): 293T Lysate: sc-159744.

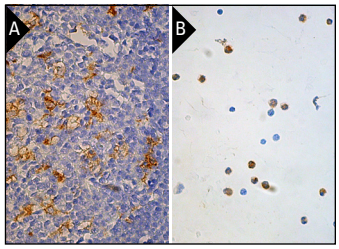
STORAGE

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

DATA



Integrin αX (B-6): sc-46676. Western blot analysis of Integrin αX expression in non-transfected 293T: sc-117752 (**A**), human Integrin αX transfected 293T: sc-159744 (**B**) and HL-60 (**C**) whole cell lysates.



Integrin αX (B-6): sc-46676. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lymph node tissue showing cytoplasmic staining of subset of cells in germinal center (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human peripheral blood leukocytes tissue showing cytoplasmic staining of neutrophils (**B**).

SELECT PRODUCT CITATIONS

1. 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.
2. Lee, S., et al. 2017. Clinicopathologic significance of tumor microenvironment CD11c, and FOXP3 expression in diffuse large B-cell lymphoma patients receiving rituximab, cyclophosphamide, anthracycline, vincristine, and prednisone (R-CHOP) combination chemotherapy. Korean J. Intern. Med. 32: 335-344.
3. Nath, D., et al. 2019. Abi1 loss drives prostate tumorigenesis through activation of EMT and non-canonical Wnt signaling. Cell Commun. Signal. 17: 120.
4. Serini, S., et al. 2021. Characterization of a hyaluronic acid and folic acid-based hydrogel for cisplatin delivery: antineoplastic effect in human ovarian cancer cells *in vitro*. Int. J. Pharm. 606: 120899.

RESEARCH USE

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

PROTOCOLS

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