SANTA CRUZ BIOTECHNOLOGY, INC.

Integrin αX (G-3): sc-398725

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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.

REFERENCES

1. Nham, S.U. 1999. Characteristics of Fibrinogen binding to the domain of CD11c, an α subunit of p150,95. Biochem. Biophys. Res. Commun. 264: 630-634.
2. Binder, R.J., et al. 2000. Cutting edge: heat shock protein gp96 induces maturation and migration of $CD11c^+$ cells *in vivo*. J. Immunol. 165: 6029-6035.
3. Langeggen, H., et al. 2002. Human umbilical vein endothelial cells express complement receptor 1 (CD35) and complement receptor 4 (CD11c/CD18) *in vitro*. Inflammation 26: 103-110.
4. Nicolaou, F., et al. 2003. CD11c gene expression in hairy cell leukemia is dependent upon activation of the proto-oncogenes Ras and JunD. Blood 101: 4033-4041.

CHROMOSOMAL LOCATION

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

SOURCE

Integrin αX (G-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 20-47 at the N-terminus 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.

Blocking peptide available for competition studies, sc-398725 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

Integrin αX (G-3) is recommended for detection of Integrin αX of mouse, rat and 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 αX siRNA (h): sc-35695, Integrin αX siRNA (m): sc-35696, Integrin αX shRNA Plasmid (h): sc-35695-SH, Integrin αX shRNA Plasmid (m): sc-35696-SH, Integrin αX shRNA (h) Lentiviral Particles: sc-35695-V and Integrin αX shRNA (m) Lentiviral Particles: sc-35696-V.

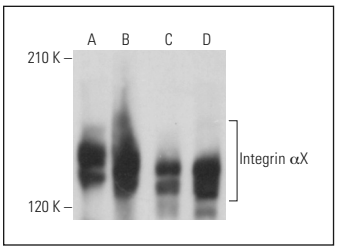
Molecular Weight of Integrin αX: 145 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, Hep G2 cell lysate: sc-2227 or K-562 whole cell lysate: sc-2203.

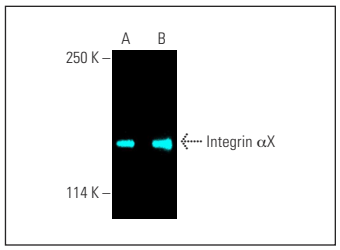
RECOMMENDED SUPPORT REAGENTS

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 αX (G-3): sc-398725. Western blot analysis of Integrin αX expression in HL-60 (**A**), K-562 (**B**), Hep G2 (**C**) and RAW 264.7 (**D**) whole cell lysates.



Integrin αX (G-3): sc-398725. Fluorescent western blot analysis of Integrin αX expression in human lung (**A**) and human spleen (**B**) tissue extracts. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgG_1 BP-CFL 647: sc-533664.

RESEARCH USE

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

CONJUGATES

See **Integrin αX (B-6): sc-46676** for Integrin αX antibody conjugates,including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.