

Integrin α X (G-3): sc-398725

BACKGROUND

Integrin α X (CD11c, leukocyte surface antigen p150,95, CR4, Axb2) is a type 1 transmembrane protein that traditionally combines with β 2 chain to form a leukocyte-specific integrin known as inactivated-C3b (iC3b) receptor 4 (CR4). Integrin α X/ β 2 shares similar properties of the α M/ β 2 Integrin in mediating adherence of neutrophils and monocytes to stimulated endothelial cells, and in phagocytosis of complement coated particles. Abnormal expression of Integrin α X 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 α X include Sp1 and Sp1-like factors, AP-1 family, C/EBP, Oct-2 and PU.1. Integrin α X 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. Langegegen, 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 α X (G-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 20-47 at the N-terminus of Integrin α X of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ 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 μ g 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 α X (G-3) is recommended for detection of Integrin α X of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 α X siRNA (h): sc-35695, Integrin α X siRNA (m): sc-35696, Integrin α X shRNA Plasmid (h): sc-35695-SH, Integrin α X shRNA Plasmid (m): sc-35696-SH, Integrin α X shRNA (h) Lentiviral Particles: sc-35695-V and Integrin α X shRNA (m) Lentiviral Particles: sc-35696-V.

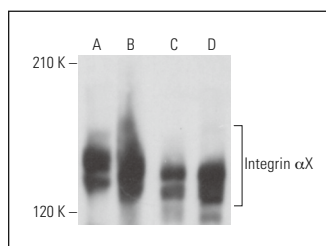
Molecular Weight of Integrin α X: 145 kDa.

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

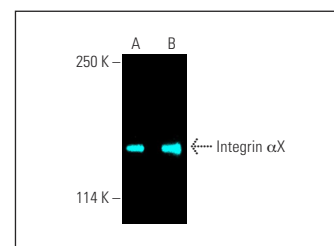
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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 α X (G-3): sc-398725. Western blot analysis of Integrin α X expression in HL-60 (A), K-562 (B), Hep G2 (C) and RAW 264.7 (D) whole cell lysates.



Integrin α X (G-3): sc-398725. Fluorescent western blot analysis of Integrin α X expression in human lung (A) and human spleen (B) tissue extracts. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgG₁ BP-CFL 647: sc-533664.

RESEARCH USE

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



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