

Integrin α X (D-8): sc-398708

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.

CHROMOSOMAL LOCATION

Genetic locus: Itgax (mouse) mapping to 7 F3.

SOURCE

Integrin α X (D-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 117-154 within an internal region of Integrin α X of mouse 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.

Integrin α X (D-8) is available conjugated to agarose (sc-398708 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398708 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398708 PE), fluorescein (sc-398708 FITC), Alexa Fluor[®] 488 (sc-398708 AF488), Alexa Fluor[®] 546 (sc-398708 AF546), Alexa Fluor[®] 594 (sc-398708 AF594) or Alexa Fluor[®] 647 (sc-398708 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-398708 AF680) or Alexa Fluor[®] 790 (sc-398708 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398708 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

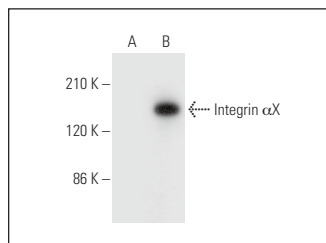
Integrin α X (D-8) is recommended for detection of Integrin α X of mouse and rat origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), 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 α X siRNA (m): sc-35696, Integrin α X shRNA Plasmid (m): sc-35696-SH and Integrin α X shRNA (m) Lentiviral Particles: sc-35696-V.

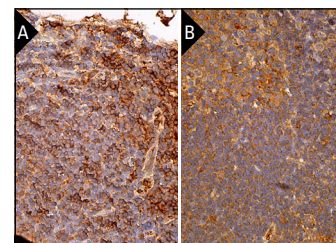
Molecular Weight of Integrin α X: 145 kDa.

Positive Controls: Integrin α X (m2): 293T Lysate: sc-178810.

DATA



Integrin α X (D-8): sc-398708. Western blot analysis of Integrin α X expression in non-transfected: sc-117752 (A) and mouse Integrin α X transfected: sc-178810 (B) 293T whole cell lysates.



Integrin α X (D-8): sc-398708. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse lymph node tissue showing membrane and cytoplasmic staining of cells in non-germinal center (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded rat lymph node tissue showing cytoplasmic staining of cells in germinal center and cells in non-germinal center (B).

SELECT PRODUCT CITATIONS

1. Hamza, M.S., et al. 2020. 2-methoxyestradiol inhibits high fat diet-induced obesity in rats through modulation of adipose tissue macrophage infiltration and immunophenotype. *Eur. J. Pharmacol.* 878: 173106.
2. Han, F., et al. 2020. TL1A primed dendritic cells activation exacerbated chronic murine colitis. *Life Sci.* 262: 118220.
3. Ho, T.Y., et al. 2022. Rosmarinic acid ameliorated psoriatic skin inflammation in mice through the novel inhibition of the interleukin-17A/interleukin-17A receptor interaction. *Food Funct.* 13: 6802-6812.

STORAGE

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

RESEARCH USE

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