

Integrin α X (N418): sc-23951

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

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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. Langeeggen, 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.
5. Edwards, A.D., et al. 2003. Relationships among murine CD11c^{high} dendritic cell subsets as revealed by baseline gene expression patterns. *J. Immunol.* 171: 47-60.
6. Paharkova-Vatchkova, V., et al. 2004. Estrogen preferentially promotes the differentiation of CD11c⁺ CD11b^{intermediate} dendritic cells from bone marrow precursors. *J. Immunol.* 172: 1426-1436.
7. Scumpia, P.O., et al. 2005. CD11c⁺ dendritic cells are required for survival in murine polymicrobial sepsis. *J. Immunol.* 175: 3282-3286.
8. Sundquist, M., et al. 2005. TNF α -dependent and -independent maturation of dendritic cells and recruited CD11c^{int} CD11b⁺ cells during oral *Salmonella* infection. *J. Immunol.* 175: 3287-3298.

CHROMOSOMAL LOCATION

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

SOURCE

Integrin α X (N418) is an Armenian hamster monoclonal antibody raised against mouse spleen dendritic cells.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Integrin α X (N418) is available conjugated to either phycoerythrin (sc-23951 PE) or fluorescein (sc-23951 FITC), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM.

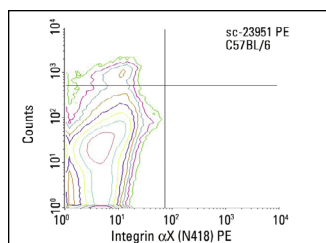
APPLICATIONS

Integrin α X (N418) is recommended for detection of Integrin α X of mouse origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 μ g per 1 x 10⁶ cells).

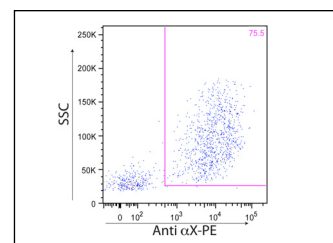
Suitable for use as control antibody for Integrin α X siRNA (m): sc-35696, Integrin α X shRNA Plasmid (m): sc-35696-SH and Integrin α X shRNA (m) Lentiviral Particles: sc-35696-V.

Molecular Weight of Integrin α X: 145 kDa.

DATA



Integrin α X (N418) PE: sc-23951 PE. FCM analysis of C57BL/6 mouse splenocytes. Quadrant markers were set based on the isotype control, normal rat IgG: sc-28775.



Integrin α X (N418): sc-23951. Mouse cutaneous lymph nodes. Flow cytometry performed on immunomagnetically isolated CD11c⁺ cells. Kindly provided by The M.C. Zúñiga Lab, University of California Santa Cruz.

SELECT PRODUCT CITATIONS

1. Kitada, Y., et al. 2016. Blockade of sphingosine 1-phosphate receptor 2 signaling attenuates high-fat diet-induced adipocyte hypertrophy and systemic glucose intolerance in mice. *Endocrinology* 157: 1839-1851.
2. Hudak, J.E., et al. 2017. Illuminating vital surface molecules of symbionts in health and disease. *Nat. Microbiol.* 2: 17099.
3. Wan, Y., et al. 2018. Aptamer-conjugated extracellular nanovesicles for targeted drug delivery. *Cancer Res.* 78: 798-808.

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.

PROTOCOLS

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