SANTA CRUZ BIOTECHNOLOGY, INC.

# Integrin αX (BU15): sc-19618

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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 endothe-lial 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


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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. 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.
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. TNFα-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 (human) mapping to 16p11.2.

## SOURCE

Integrin αX (BU15) is a mouse monoclonal antibody raised against synovial fluid dendritic cells 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 (BU15) is available conjugated to either phycoerythrin (sc-19618 PE) or fluorescein (sc-19618 FITC), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM.

## APPLICATIONS

Integrin αX (BU15) is recommended for detection of Integrin αX of human and canine origin by 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 flow cytometry (1 µg per 1 x $10^6$ cells).

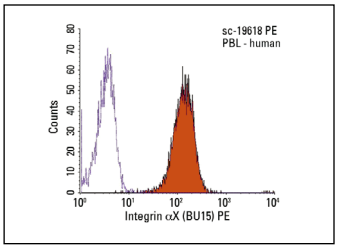
Suitable for use as control antibody for Integrin αX siRNA (h): sc-35695, Integrin αX shRNA Plasmid (h): sc-35695-SH and Integrin αX shRNA (h) Lentiviral Particles: sc-35695-V.

Molecular Weight of Integrin αX: 145 kDa.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 2) 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 (BU15) PE: sc-19618 PE. FCM analysis of human peripheral blood leukocytes. Black line histogram represents the isotype control, normal mouse $IgG_1$-PE: sc-2866.

## 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.

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.