SANTA CRUZ BIOTECHNOLOGY, INC.

Integrin αX (h4): 293T Lysate: sc-158645



BACKGROUND

Integrin aX (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 $\alpha X/\beta 2$ shares similar properties of the $\alpha M/\beta 2$ 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 Jun D. 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 aX 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, and 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 yp96 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 Jun D. 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. Tian, T., et al. 2005. In vivo depletion of CD11c+ cells delays the CD4+ T cell response to Mycobacterium tuberculosis and exacerbates the outcome of infection. J. Immunol. 175: 3268-3272.
- 8. Scumpia, P.O., et al. 2005. CD11c+ dendritic cells are required for survival in murine polymicrobial sepsis. J. Immunol. 175: 3282-3286.
- 9. 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 (human) mapping to 16p11.2.

RESEARCH USE

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

PRODUCT

Integrin α X (h4): 293T Lysate represents a lysate of human Integrin α X transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

Integrin α X (h4): 293T Lysate is suitable as a Western Blotting positive control for human reactive Integrin αX antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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