

## TECHNICAL DATA SHEET

# Biotin Anti-Mouse CD11c (N418)

Catalog Number: 30-0114

## PRODUCT INFORMATION

**Contents:** Biotin Anti-Mouse CD11c (N418)

**Isotype:** Armenian Hamster IgG

**Concentration:** 0.5 mg/mL

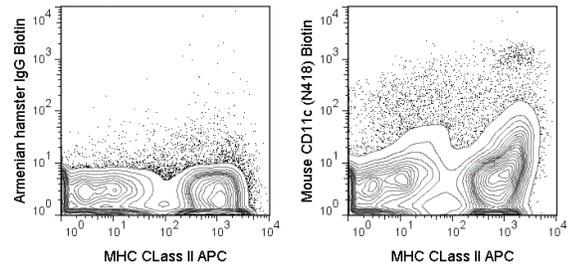
**Clone:** N418

**Reactivity:** Mouse

**Use By:** 12 months from date of receipt

**Storage Conditions:** 2-8°C protected from light

**Formulation:** 10 mM NaH<sub>2</sub>PO<sub>4</sub>, 150 mM NaCl, 0.09% NaN<sub>3</sub>, pH 7.2



C57Bl/6 splenocytes were stained with APC MHC Class II and 0.03 ug Biotin Anti-Mouse CD11c (30-0114) (right panel) or 0.03 ug Biotin Armenian hamster IgG isotype control (left panel), followed by Streptavidin PE.

## DESCRIPTION

The N418 antibody reacts with mouse CD11c, also known as integrin alpha X. This 150 kDa cell surface glycoprotein is part of a family of integrin receptors that mediate adhesion between cells (cell-cell) and components of the extracellular matrix, e.g. fibrinogen (cell-matrix). In addition, integrins are active signaling receptors which recruit leukocytes to inflammatory sites and promote cell activation. Complete, functional integrin receptors consist of distinct combinations of integrin chains which are differentially expressed. Integrin alpha X (CD11c) assembles with Integrin beta-2 (CD18) into a receptor complex known as CR4 which can bind and induce signaling through ICAMs and VCAM-1 on endothelial cells and can also facilitate removal of iC3b bearing foreign cells. The N418 antibody is widely used as a marker for CD11c expression on dendritic cells (DC), often in parallel with markers for CD11b, for identification of developmental stages and mature subsets of this cell type. CD11c is prominently expressed on tissue macrophages, and is also detected on some types of activated T cells and intestinal intraepithelial lymphocytes (IEL).

## PREPARATION & STORAGE

This monoclonal antibody was purified from tissue culture supernatant via affinity chromatography. The purified antibody was conjugated under optimal conditions, with unreacted dye removed from the preparation. It is recommended to store the product undiluted at 4°C, and protected from prolonged exposure to light. Do not freeze.

## APPLICATION NOTES

This antibody preparation has been quality-tested for flow cytometry using mouse spleen cells, or an appropriate cell type (where indicated). Please refer to the figure legend for the optimal concentration used to stain the tissue shown. We recommend titrating the antibody under your specific conditions to determine the optimal concentration of antibody needed in your experimental system.

## REFERENCES

Guerrero JL, Ditsworth D, Catanzaro JM, Sabino G, Furie MB, Kew RR, Crawford HC, and Zong W-X. 2011. *J. Immunol.* 186: 3517-3526. (Immunohistochemistry – paraffin embedded tissue) Grewal JS, Pilgrim MJ, Grewal S, Kasman L, Werner P, Bruerton ME, London SD, and London L. 2011. *FASEB J.* 25:1680-1696. (Immunofluorescence microscopy – frozen tissue) Sadhu C, Ting HJ, Lipsky B, Hensley K, Garcia-Martinez LF, Simon SI, and Staunton DE. 2007. *J. Leukoc. Biol.* 81: 1395-1403. (in vitro blocking) Hagnerud, S, Manna PP, Cella M, Stenberg A, Frazier WA, Colonna M, and Oldenborg P-A. 2006. *J. Immunol.* 5772-5778. (Immunofluorescence microscopy – frozen tissue) Finkelman FD, Lees A, Birnbaum R, Gause WC, and Morris SC. 1996. *J. Immunol.* 157: 1406-1414. (in vivo activation) Huleatt JW and Lefrancois L. 1995. *J. Immunol.* 154: 5684-5693. (Immunoprecipitation) Metlay JP, Witmer-Pack MD, Agger R, Crowley MT, Lawless D, and Steinman RM. 1990. *J. Exp. Med.* 171: 1753. (Immunoprecipitation)

Tonbo Biosciences tests all antibodies by flow cytometry. Citations are provided as a resource for additional applications that have not been validated by Tonbo Biosciences. Please choose the appropriate format for each application and consult Materials and Methods sections for additional details about the use of any product in these publications.

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