

Mouse (monoclonal) Anti-Human B-cells, Carcinoma CD40

PRODUCT ANALYSIS SHEET

Catalog Number: AHS4002

Lot Number: See product label

Clone Number: EA-5

Quantity/Volume: 0.1 mg/0.1 mL

Form of the Antibody: Purified immunoglobulin in phosphate buffered saline. Preservative-free and carrier-free.

Filtered through a $0.22~\mu m$ filter. Purified from ascites.

Preservation: None

Isotype: IgG1

Recognition: EA-5 immunoprecipitates proteins of 48 and 45 kDa. The 45 kDa band appears to be a

degradative form of the larger protein.

Specificity: CD40 is expressed on peripheral blood and tonsillar B-cells, most B-cell lymphomas and

leukemias, as well as several pre B-cell leukemias and some carcinomas. It is not present on most progenitor B-cell leukemias or terminally differentiated B-cells. The CD40 antigen shares structural homology with the nerve growth factor receptor. EA-5 competes for binding with the anti-CD40 monoclonal antibody G28-5 indicating similar

epitope binding.

Ligation of CD40 with this antibody causes decreased proliferation and up-regulation of

IL-6 transcription with KTL-1 cells (Amo et al., 2000).

Applications: This antibody is suitable for use in immunoprecipitation and flow cytometry with utility

in B-cell precursor development studies. Use approximately 1 μ g to label \leq 10⁶ cells for flow cytometry. The optimal antibody concentration should be determined for each

specific application.

Dilution

Recommendations: Further dilutions should be made in medium or buffered solutions containing carrier

protein, such as PBS with 0.1-1.0% BSA. Sodium azide (0.1%) may be added for long

term storage of this product.

Storage: Store at \leq -20°C. Upon initial thawing, apportion the antibody into working aliquots and

store at ≤-20°C. Avoid repeated freeze/thaw cycles.

For research use only. CAUTION: Not intended for human or animal therapeutic or diagnostic use.

www.invitrogen.com

Invitrogen Corporation • 542 Flynn Rd • Camarillo • CA 93012 • Tel: 800.955.6288 • E-mail: techsupport@invitrogen.com

(Rev 06/09) DCC-09-0751

References:

Amo, Y., Y. Ohta, K. Katsuoka, and H. Tamauchi (2000) CD40 ligation inhibits trichilemmoma cell proliferation and induces IL-6 production. J. Dermatol. Sci. 22(2):124-131.

Blauvelt, A., H. Asada, M.W. Saville, V. Klaus-Kovtun, D.J. Altman, R. Yarchoan, and S.I. Katz (1997) Productive infection of dendritic cells by HIV-1 and their ability to capture virus are mediated through separate pathways. J. Clin. Invest. 100(8):2043-2053.

Goriely, S., B. Vincart, P. Stordeur, J. Vekemans, F. Willems, M. Goldman, and D. De Wit (2001) Deficient IL-12(p35) gene expression by dendritic cells derived from neonatal monocytes. J. Immunol. 166(3):2141-2146.

Gruber, A., J.C. Wheat, K.L. Kuhen, D.J. Looney, and F. Wong-Staal (2001) Differential effects of HIV-1 protease inhibitors on dendritic cell im munophenotype and function. J. Biol. Chem. 276(51):47840-47843.

Ismaili, J., J. Rennesson, E. Aksoy, J. Vekemans, B. Vincart, Z. Amraoui, F. Van Laethem, M. Goldman, and P.M. Dubois (2002) Monophosphoryl lipid A activates both human dendritic cells and T cells. J. Immunol. 168(2):926-932.

Kawamura, T., M. Qualbani, E.K. Thomas, J.M. Orenstein, and A. Blauvelt (2001) Low levels of productive HIV infection in Langerhans cell-like dendritic cells differentiated in the presence of TGF-beta 1 and increased viral replication with CD40 ligand-induced maturation. Eur. J. Immunol. 31(2):360-368.

Knapp, W., ed. (1989) Leukocyte Typing IV, Oxford University Press, London, pp. 91, 92, 153, 154, 203, 204.

Larson, A., and T. LeBien (1994) Cross-linking CD40 on human B cell precursors inhibits or enhances growth depending on the stage of development and the IL costimulus. J. Immunol. 153:584.

Law, C., B. Wormann, and T.W. LeBien (1990) Analysis of expression and function of CD40 on normal and leukemic human B cell precursors. Leukemia 4:732.

Matasić, R., A.B. Dietz, and S. Vuk-Pavlović (2000) Cyclooxygenase-independent inhibition of dendritic cell maturation by aspirin. Immunology 101:53-60.

Matasić, R., A.B. Dietz, S. Vuk-Pavlović (2001) Maturation of human dendritic cells as a sulfasalazine target. Croatian Medial Journal 42:44-445.

Oravecz, T., G. Roderiquez, J. Koffi, J. Wang, M. Ditto, D. C. Bou-Habib, P. Lusso, and M.A. Norcross (1995) CD26 expression correlates with entry, replication and cytopathicity of monocytotropic HIV-1 strains in a T-cell line. Nat. Med. 1(9):919-926.

Zavadova, E., C.A. Savary, S. Templin, C.F. Verschraegen, and R.S. Freedman (2001) Maturation of dendritic cells from ovarian cancer patients. Cancer Chemotherapy and Pharmacology 48(4):289-296.