



11-627-C100

Monoclonal Antibody to CD80 Purified Antibody (0.1 mg)

Clone: 16-10A1

Isotype: Hamster IgG2

Specificity: The Armenian hamster monoclonal antibody 16-10A1 reacts with CD80 (B7-1), a

60 kDa single chain type I glycoprotein of immunoglobulin supergene family, expressed on professional antigen-presenting cells, such as dendritic cells,

macrophages or activated B lymphocytes.

Regulatory Status: RUO

Immunogen: CD80-transfected CHO cell line

Species Reactivity: Mouse, Canine (Dog)

Application: Flow Cytometry

Recommended dilution:6 µg/ml

Immunoprecipitation

Immunohistochemistry (frozen sections)

Functional Application

Blocking

Purity: > 95% (by SDS-PAGE)

Purification: Purified by protein-A affinity chromatography

Concentration: 1 mg/ml

Storage Buffer: Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4

Storage / Stability: Store at 2-8°C. Do not freeze. Do not use after expiration date stamped on vial

label.

Expiration: See vial label

Lot Number: See vial label

Background: CD80 (B7-1) and CD86 (B7-2) are ligands of T cell critical costimulatory molecule

CD28 and of an inhibitory receptor CTLA-4 (CD152). The both B7 molecules are expressed on professional antigen-presenting cells and are essential for T cell activation, the both molecules can also substitute for each other in this process. The question what are the differences in CD80 and CD86 competency has not been fully elucidated yet; there are still conflicts in results about their respective

roles in initiation or sustaining of the T cell immune response.



PRODUCT DATA SHEET

References:

*Gueirard P, Ave P, Balazuc AM, Thiberge S, Huerre M, Milon G, Guiso N: Bordetella bronchiseptica persists in the nasal cavities of mice and triggers early delivery of dendritic cells in the lymph nodes draining the lower and upper respiratory tract. Infect Immun. 2003 Jul;71(7):4137-43.

*Horspool JH, Perrin PJ, Woodcock JB, Cox JH, King CL, June CH, Harlan DM, St Louis DC, Lee KP: Nucleic acid vaccine-induced immune responses require CD28 costimulation and are regulated by CTLA4. J Immunol. 1998 Mar 15;160(6):2706-14.

*Mencacci A, Montagnoli C, Bacci A, Cenci E, Pitzurra L, Spreca A, Kopf M, Sharpe AH, Romani L: CD80+Gr-1+ myeloid cells inhibit development of antifungal Th1 immunity in mice with candidiasis. J Immunol. 2002 Sep 15;169(6):3180-90.

*Odobasic D, Kitching AR, Semple TJ, Timoshanko JR, Tipping PG, Holdsworth SR: Glomerular expression of CD80 and CD86 is required for leukocyte accumulation and injury in crescentic glomerulonephritis. J Am Soc Nephrol. 2005 Jul;16(7):2012-22.

*Reiser J, von Gersdorff G, Loos M, Oh J, Asanuma K, Giardino L, Rastaldi MP, Calvaresi N, Watanabe H, Schwarz K, Faul C, Kretzler M, Davidson A, Sugimoto H, Kalluri R, Sharpe AH, Kreidberg JA, Mundel P: Induction of B7-1 in podocytes is associated with nephrotic syndrome. J Clin Invest. 2004 May;113(10):1390-7.

*Paust S, Lu L, McCarty N, Cantor H: Engagement of B7 on effector T cells by regulatory T cells prevents autoimmune disease. Proc Natl Acad Sci U S A. 2004 Jul 13;101(28):10398-403.

*Quah B, Ni K, O'Neill HC: In vitro hematopoiesis produces a distinct class of immature dendritic cells from spleen progenitors with limited T cell stimulation capacity. Int Immunol. 2004 Apr;16(4):567-77.

*Mukherjee S, Ahmed A, Malu S, Nandi D: Modulation of cell cycle progression by CTLA4-CD80/CD86 interactions on CD4+ T cells depends on strength of the CD3 signal: critical role for IL-2. J Leukoc Biol. 2006 Jul;80(1):66-74.

*And many other.

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