

TECHNICAL DATA SHEET

CyFlow™ CD80 Purified Anti-Ms; Clone 16-10A1

REF CN558009

For Research Use Only.
Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD80
Alternative Names	B7- B7-1, BB1
Clone	16-10A1
Clonality	monoclonal
Format	Purified
Host / Isotype	Hamster / IgG2
Species Reactivity	Mouse, Dog
Negative Species Reactivity	—
Quantity [Concentration]	0.1 mg [1 mg/ml]
Immunogen	CD80-transfected CHO cell line

Specificity

The Armenian hamster monoclonal antibody 16-10A1 recognizes CD80 antigen, 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.

Contact Information:

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: info@sysmex-partec.com

Application

Based on published sources, this antibody is suitable for the following applications:

- Flow cytometry
- Immunoprecipitation
- Immunohistochemistry (frozen sections)
- Functional assays

Storage Buffer

The reagent is provided in phosphate buffered saline (PBS) solution, pH $\approx$ 7.4, containing 0.1% (w/v) sodium azide.

Storage and Stability

Storage	Avoid prolonged exposure to light. Store in the dark at 2-8°C. Do not freeze.
Stability	Do not use after expiration date stamped on vial label.

Background Information

CD80 (B7-1) and CD86 (B7-2) are ligands of T cell critical costimulatory molecule CD28 and of an inhibitory receptor CD152 (CTLA-4). 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.

References

- 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. < PMID: 9510170 >
- 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. < PMID: 12218136 >
- 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

Contact Information:

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: info@sysmex-partec.com

- draining the lower and upper respiratory tract. Infect Immun. 2003 Jul; 71(7):4137-43. < PMID: 12819105 >
- 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. < PMID: 15039387 >
 - 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. < PMID: 15146236 >
 - 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 USA. 2004 Jul 13; 101(28):10398-403. < PMID: 15235129 >
 - 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. < PMID: 15944341 >
 - 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. < PMID: 16624934 >

The Safety Data Sheet for this product is available at www.sysmex-partec.com/services.

Contact Information:

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: info@sysmex-partec.com