EXBIO Antibodies

PRODUCT DATA SHEET

1F-628-C100

Monoclonal Antibody to CD86 (mouse) Fluorescein (FITC) conjugated (0.1 mg)

Clone:	GL-1
Isotype:	Rat IgG2a
Specificity:	The rat monoclonal antibody GL-1 reacts with CD86 (B7-2), a 70-80 kDa type I transmembrane glycoprotein of immunoglobulin supergene family, expressed on professional antigen-presenting cells, such as dendritic cells, macrophages or activated B lymphocytes.
Regulatory Status:	RUO
Immunogen:	LPS-activated CBA/Cs mouse splenic B cells
Species Reactivity:	Mouse
Preparation:	The purified antibody is conjugated with Fluorescein isothiocyanate (FITC) under optimum conditions. The reagent is free of unconjugated FITC.
Concentration:	0.5 mg/ml
Storage Buffer:	Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4
Storage / Stability:	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label.
Usage:	The reagent is designed for Flow Cytometry analysis. Suggested working concentration is 2 µg/ml. Indicated dilution is recommended starting point for use of this product. Working concentrations should be determined by the investigator.
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.

For laboratory research only, not for drug, diagnostic or other use.

EXBIO Praha | Nad Safinou II 341 | 252 50 Vestec u Prahy | Czech Republic
Tel: +420 261 090 666 | Fax: +420 261 090 660 | orders@exbio.cz | www.exbio.cz

References:

*Hathcock KS, Laszlo G, Dickler HB, Bradshaw J, Linsley P, Hodes RJ: Identification of an alternative CTLA-4 ligand costimulatory for T cell activation. Science. 1993 Nov 5;262(5135):905-7.
*Benschop RJ, Melamed D, Nemazee D, Cambier JC: Distinct signal thresholds for the unique antigen receptor-linked gene expression programs in mature and immature B cells. J Exp Med. 1999 Sep 20;190(6):749-56.
*Radhakrishnan S, Arneson LN, Upshaw JL, Howe CL, Felts SJ, Colonna M, Leibson PJ, Rodriguez M, Pease LR: TREM-2 mediated signaling induces antigen uptake and retention in mature myeloid dendritic cells. J Immunol. 2008 Dec 1;181(11):7863-72.
*Chung JB, Wells AD, Adler S, Jacob A, Turka LA, Monroe JG: Incomplete activation of CD4 T cells by antigen-presenting transitional immature B cells: implications for peripheral B and T cell responsiveness. J Immunol. 2003 Aug 15;171(4):1758-67.
*Steptoe RJ, Ritchie JM, Jones LK, Harrison LC: Autoimmune diabetes is suppressed by transfer of proinsulin-encoding Gr-1+ myeloid progenitor cells that differentiate in vivo into resting dendritic cells. Diabetes. 2005 Feb;54(2):434-42.
*Nolan A, Kobayashi H, Naveed B, Kelly A, Hoshino Y, Hoshino S, Karulf MR, Rom WN, Weiden MD, Gold JA: Differential role for CD80 and CD86 in the regulation of the innate immune response in murine polymicrobial sepsis. PLoS One. 2009 Aug 12;4(8):e6600.
*Brasel K, De Smedt T, Smith JL, Maliszewski CR: Generation of murine dendritic cells from flt3-ligand-supplemented bone marrow cultures. Blood. 2000 Nov 1;96(9):3029-39.
*Nolan A, Weiden M, Kelly A, Hoshino Y, Hoshino S, Mehta N, Gold JA: CD40 and CD80/86 act synergistically to regulate inflammation and mortality in polymicrobial sepsis. Am J Respir Crit Care Med. 2008 Feb 1;177(3):301-8.
*Edgtton KL, Kausman JY, Li M, O'Sullivan K, Lo C, Hutchinson P, Yagita H, Holdsworth SR, Kitching AR: Intrarenal antigens activate CD4+ cells via co-stimulatory signals from dendritic cells. J Am Soc Nephrol. 2008 Mar;19(3):515-26.
*And many other.

EXBIO Praha | Nad Safinou II 341 | 252 50 Vestec u Prahy | Czech Republic
Tel: +420 261 090 666 | Fax: +420 261 090 660 | orders@exbio.cz | www.exbio.cz