



## RayBiotech, Inc.

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# Certificate of Analysis and Data Sheet

## Rat Anti-Mouse CD80:FITC

**Catalog No.**  
DS-MB-03886

**Species**  
Bacterial

**Isotype**  
IgG2a

### Preparation

**Purification:** Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant

**Immunogen:** BCL1 cells expressing CD80

**Fusion Partners:** Spleen cells from immunised SD rats were fused with cells of the P3U1 myeloma cell line.

### Specificity

DS-MB-03886 recognizes mouse CD80 (B7-1), a 60kD cell surface glycoprotein which is a member of the CD28/B7 family. In mice, CD80 is expressed on monocytes, peritoneal macrophages and dendritic cells, and expression may be significantly increased upon B lymphocytes by LPS and by IL-4. CD80 has been identified as a ligand for CD28 and cytotoxic T-lymphocyte antigen-4 (CTLA-4), two structurally similar molecules expressed on T cells. CD28 and CTLA4 are two receptors that have essential but opposing functions in T-cell stimulation. The Interaction of CD80 with CD28 stimulates and sustains T cell responses, whereas the interaction of CD80 with CTLA4 is reported to inhibit T-cell responses.

### Formulation

**Product Type:** Monoclonal Antibody

**Product Form:** Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid

**Buffer Solution:** Phosphate buffered saline pH7.4

**Preservative Stabilizers:** 0.09% Sodium Azide, 1% Bovine Serum Albumin

**Approx. Protein Concentrations:** IgG concentration 0.1mg/ml

### Applications

Table Summary of antibody applications and working conditions

Options Functions	YES	NO	Not determined	Recommended Work dilution or concentration
Flow Cytometry (1)	•			Neat

**Note:** Other applications are not tested yet. Optimal dilutions should be determined.

(1) Use 10ul of the suggested working dilution to label  $1 \times 10^6$  cells in 100ul.

**The products are furnished for LABORATORY RESEARCH USE ONLY.  
Not for diagnostic or therapeutic use.**



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### **Storage**

Store at +4°C or at -20°C if preferred.

Storage in frost-free freezers is not recommended.

This product should be stored undiluted. This product is photosensitive and should be protected from light. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

**Shelf Life:** 18 months from date of dispatch.

### **References**

1. Nuriya, S. et al. (1996) The differential role of CD86 and CD80 co-stimulatory molecules in the induction and the effector phases of contact hypersensitivity. *Int. Immunol.* 8: 917-926.
2. Jin, L-P et al. (2004) Adoptive transfer of paternal antigen-hyporesponsive T cells induces maternal tolerance to the allogeneic fetus in abortion-prone matings. *The Journal of Immunol.* 173: 3612-3619.
3. Nakajima, A. et al. (1997) Requirement of CD28-CD86 co-stimulation in the interaction between antigen-primed T helper type 2 and B cells. *International Immunol.* 9: 637-644.
4. Nozawa, K. et al. (2001) Preferential blockade of CD8+ T cell responses by administration of anti-CD137 ligand monoclonal antibody results in differential effect on development of murine acute and chronic graft-versus-host diseases. *The Journal of Immunol.* 167: 4981-4986.
5. Bedoret, D. et al. (2009) Lung interstitial macrophages alter dendritic cell functions to prevent airway allergy in mice. *J. Clin. Invest.* 119: 3723-3738.

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