



## RayBiotech, Inc.

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# Certificate of Analysis and Data Sheet Mouse Anti-Rat TCR alpha/beta:Biotin

**Catalog No.**  
DS-MB-02362

**Target Species**  
Rat

**Isotype**  
IgG1

## Preparation

**Immunogen:** Rat T Blasts and Erythrocytes

**Purification:** Purified IgG prepared by ion exchange chromatography

**Fusion Partners:** Spleen cells from immunized BALB/c mice were fused with cells of the X63.Ag8.653 mouse myeloma cell line.

## Specificity

DS-MB-02362 detects a T cell specific molecule consisting of two disulphide-linked subunits of 40 and 46 kD molecular weight, respectively, on 97% of peripheral rat T cells as defined by the OX-52 marker. R73 is mitogenic for unseparated spleen cells and for purified T cells. In the rat thymus, mature medullary cells express the DS-MB-02362 determinant at the same level as peripheral T cells, whereas 94% of CD4- CD8- thymocytes are DS-MB-02362 negative. It is most likely directed at a constant determinant of the rat alpha/beta heterodimeric T cell antigen receptor.

**Species Cross Reactivity** with Monkey, Cynomolgus monkey

\* Antibody reactivity and working conditions may vary between species.

## Formulation

**Product Type:** Monoclonal Antibody

**Product Form:** Purified IgG conjugated to Biotin - liquid

**Buffer Solution:** Phosphate buffered saline pH7.2

**Preservative Stabilizers:** 0.09% Sodium Azide (NaN<sub>3</sub>), 1% Bovine Serum Albumin

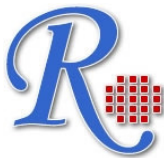
**Approx. Protein Concentrations:** IgG concentration 0.1 mg/ml

## Applications

Options Functions	YES	NO	Not determined	Recommended Work dilution or concentration
Flow Cytometry (1)	•			Neat - 1:10

**Note:** Other applications are not tested yet. Optimal dilutions should be determined.  
(1) Use 10ul of the suggested working dilution to label 10<sup>6</sup> lymphocytes 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.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. 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.

### **Reference**

1. Hunig, T. *et al.* (1989) A monoclonal antibody to a constant determinant of the rat T cell antigen receptor that induces T cell activation. Differential reactivity with subsets of immature and mature T lymphocytes J. Exp. Med. 169: 73-86.
2. Tsuchida, M. *et al.* (1994) Identification of CD4- CD8- alpha/beta T cells in the subarachnoid space of rats with experimental autoimmune encephalomyelitis. A possible route by which effector cells invade the lesions. Immunology 81: 420-427.
3. Tomida, S. *et al.* (1994) Intercellular adhesion molecule-1 and leukocyte function-associated antigen-1 are involved in protection mediated by CD3+TCR alpha beta- T cells at the early stage after infection with *Listeria monocytogenes* in rats Int. Immunol. 6: 955-961.
4. Matsumoto, Y. *et al.* (1994) Successful prevention and treatment of autoimmune encephalomyelitis by short term administration of anti-T-cell receptor alpha beta antibody. Immunology. 81: 1 - 7.
5. Colic, M. *et al.* (1996) Mechanisms involved in the binding of thymocytes to rat thymic dendritic cells. Dev. Immunol. 5: 37 - 51.
6. Arika, S.G. and Roux, M.E. (0) T lymphocyte subpopulations in the intestinal villi of immune deficient rats. In Recent Advances in Mucosal Immunology. Edited by McGhee, J., Mestecky, J., Tlaskalova, H. and Sterzl, J.
7. Yoshino, N. *et al.* (2000) Upgrading of flow cytometric analysis for absolute counts, cytokines and other antigenic molecules of *Cynomolgus* monkeys (*Macaca fascicularis*) by using anti-human cross-reactive antibodies. Exp. Anim. 49: 97-110

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