

Monoclonal Antibody to Rat TCR Alpha/Beta - Azide Free

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Catalog No.:	SM321A
Quantity:	1 mg
Concentration:	1.0 mg/ml
Host / Isotype:	Mouse / IgG1
Recommended Isotype Controls:	SM20A (for use in rat samples)
Clone:	R73
Immunogen:	Rat T Blasts and Erythrocytes
Applications:	Flow Cytometry (use 10 µl of 1/50 - 1/100 diluted antibody to label 106 cells in 100 µl or 100 µl whole blood), Immunohistochemistry on frozen sections (1/10 - 1/100), Immunoprecipitation and Functional Studies (2, 3). Other applications not tested. Optimal dilutions of this antibody are dependent on conditions and should be determined by the user. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	SM321A recognises a constant determinant on the beta chain of the rat alpha/beta T cell receptor, expressed by 97% of peripheral rat T cells as defined by the OX-52 marker. Clone R73 is mitogenic for unseparated spleen cells and for purified T cells. In the rat thymus, mature medullary cells express the R73 determinant at the same levels as peripheral T cells, whereas 94% of CD4 - CD8 - thymocytes are R73 negative. This clone is reported to stimulate adhesion between Thymic Dendritic Cells and Thymocytes (2). Cross reacts with Cynomolgus monkey (4).
Storage:	Store the antibody undiluted at -20°C only. Avoid repeated freezing and thawing. Should this product contain a precipitate we recommend microcentrifugation before use. Shelf life: one year from despatch.
General Readings:	1. Hünig T, Wallny HJ, Hartley JK, Lawetzky A, Tiefenthaler G. 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. 1989 Jan 1;169(1):73-86. PubMed PMID: 2783336. 2. Colić M, Ilić V, Pavlović MD, Tamatani T, Miyasaka M. Mechanisms involved in the binding of thymocytes to rat thymic dendritic cells. Dev Immunol. 1996;5(1):37-51. PubMed PMID: 8828010. 3. Matsumoto Y, Tsuchida M, Hanawa H, Abo T. Successful prevention and treatment of autoimmune encephalomyelitis by short-term administration of anti-T-cell receptor alpha

beta antibody. Immunology. 1994 Jan;81(1):1-7. PubMed PMID: 7510661.

4. Yoshino N, Ami Y, Terao K, Tashiro F, Honda M. 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. 2000 Apr;49(2):97-110. PubMed PMID: 10889948.