

## Peninsula Laboratories, LLC

## A Member of the Bachem Group

305 Old County Road, San Carlos, CA 94070 Tel: (800) 922-1516 • (650) 592-5392

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# Monoclonal Antibody to Rat CD4 T Helper Cells

Monoclonal antibody Rib 5/2 is used for the identification of CD4 bearing cells, mainly Thelper / inducer lymphocytes. It can also be applied for *in vivo* blocking of CD4 mediated immunological reactions.

Product Number: T-3109
Clone: Rib5/2

Host species, isotype: Mouse IgG2a

**Quantity:** 150μg

Format: Purified, lyophilized

Reconstitute by adding 0.5ml distilled water. This stock solution contains 0.3mg/ml lgG, phosphate buffered saline pH 7.2 (PBS), 10mg/ml bovine serum albumin (BSA) as a stabilizer

and 0.01% thimerosal as a preservative.

**Stability:** Original vial: 1 year at 4° - 8°C

Stock solution or aliquots thereof: 1 year at -20°C. Avoid

repeated thawing and freezing.

**Applications:** Tested for immunohistochemistry (IHC); has been described to

work in FACS.

Approximate working dilution for IHC:

Frozen sections: 1.5µg/ml (1:200)

Paraffin sections: does not react on routinely processed

paraffin sections

Optimal dilutions should be determined by the end user.

Suggested positive control: Rat spleen.

Immunogen: Lymphoblasts.

Antigen, epitope: Rib 5/2 detects a 53kDa glycoprotein located on the cell

surface

**Antigen distribution: Isolated cells:** T-lymphocytes and thymocytes, monocytes,

macrophages.

**Tissue sections:** Rib 5/2 stains T-cell areas in the spleen and lymph nodes. In the thymus Rib 5/2 detects cortical and medullary thymocytes. It recognises tissue macrophages and

Th-cells according to the CD4 distribution.



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**Specificity:** Rat: subpopulation of T-Cells.

Other species: not tested.

### Comparison of CD4 and CD8 Monoclonal antibodies performed by flow cytometry

#### % Positive Cells

	CD4		CD8	
Isolated cells from:	Rib 5/2	W3/25	Rib 6/1	Ox-8
Lymph node Spleen Peripheral blood	46 31 48	43 30 49	16 13 25	16 13 26

Courtesy of Dr. Lehmann, University of Rostock, Germany.

#### Selected references

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KATZKE, G. et al.: Der Effekt einer temporaeren Anti-CD4 Therapie vor und nach allogener Inseltransplantation in Streptozotocin- diabetischen oder spontan-diabetischen Ratten. Fruehjahrstagung fur Immunologie, Berlin (1991).

LEHMANN, M. et al.: A novel high-efficient anti-CD4 monoclonal antibody induces long-term survival of rat skin allografts. Transplantation: 54(6), 959-962 (1992).

LEHMANN, M. et al.: Characterization of the Anti-CD4-Induced permanent Acceptace of Rat Renal Allografts. Transplantation Proceedings: <u>25(5)</u>, 2859-2860 (1993).

SIEGLING, A. et al.: A nondepleting Anti-Rat CD4 Monoclonal Antibody that supresses T Helper 1-like but not T Helper 2-like intragraft lymphokine secretion induces long-term survival of Renal Allografts. Transplantation: 57(3), 464-467 (1994).

For in vitro research only. Caution: this product contains thimerosal, a poisonous and hazardous substance.