



Peninsula Laboratories, LLC

A Member of the Bachem Group

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Monoclonal Antibody To Rat Macrophages

Broad Marker For Macrophages, Not Monocytes

Monoclonal Antibody Ki-M2R is an antibody that recognizes typical tissue macrophages and specifically discriminates between monocytes (Ki-M2R⁻) and macrophages (Ki-M2R⁺). It stains all resident macrophages including those of bone marrow, lymphatic sinuses, lymphoid follicles, splenic red pulp, and Kupffer cells in the liver. Langerhans cells, interdigitating reticulum cells, and dendritic reticulum cells of lymphoid follicles are not stained. Ki-M2R is a reliable tool for indicating macrophage differentiation *in vivo* and *in vitro*.

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|-------------------------------|--|
| Product Number: | T-3004 |
| Clone: | Ki-M2R |
| Host species, isotype: | Mouse IgG1 |
| Quantity: | 100µg |
| Format: | Affinity purified, lyophilized |
| | Reconstitute by adding 0.5ml distilled water. This stock solution contains 0.2mg/ml IgG, phosphate buffered saline pH 7.2 (PBS), 5mg/ml bovine serum albumin (BSA) as a stabilizer and 0.09% sodium azide 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). Approximate working dilution for IHC: Frozen sections: 0.5µg/ml (1:400) Paraffin sections: 5µg/ml (1:40); Proteinase K pretreatment for antigen retrieval is recommended. Optimal dilutions should be determined by the end user. Suggested positive control: Rat spleen. |
| Immunogen: | Rat peritoneal macrophages |
| Antigen, epitope: | Ki-M2R recognises a surface antigen of 45kD molecular weight as a single band under reducing conditions. The epitope has not been further characterized |



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Antigen distribution:

Isolated cells: In the bone marrow a minor number of macrophages reveal a strong reactivity whereas granulocytes, erythropoietic cells and megacaryocytes are negative. Immature accessory cells such as dendritic or interdigitating reticulum cells are also negative. Monocytes show a positive reaction when exposed to TPA or foreign material.

Tissue sections: Ki-M2R positive cells have been recognised as active phagocytes in serous cavities (peritoneal and pleural macrophages). Liver (Kupffer cells), spleen (macrophages of the red pulp), lymph nodes (macrophages of the pulp and sinus, tingible body macrophages), lung (approx. 50% of alveolar macrophages) and connective tissue (histiocytes) are positively stained. Plasma cells (excluding stimulated monocytes) as well as sinus lining cells are negative.

Specificity:

Rat: mature macrophages.

Other species: not tested

Selected references

WACKER, H.H. et al.: Ki-M2R a new specific monoclonal antibody, discriminates tissue macrophages from reticulum cells and monocytes *in vivo* and *in vitro*. J.Leuk.Biol.: 38, 509 - 520 (1985).

WACKER, H.H. et al.: Kinetics of Kupffer cells as shown by parabiosis and combined autoradiographic/immunohistochemical analysis. Virch.Arch. B. (Cell Pathol.): 51, 71 - 78 (1986).

WACKER, H.H. et al.: Selective recognition of Rat Follicular Dendritic Cells (Dendritic Reticulum Cells) by a New Monoclonal Antibody KI-M4R In Vitro and In Vivo. J. Leuk. Biol. 41, 70-77 (1987).

For in vitro research only. Caution: this product contains sodium azide as poisonous and hazardous substance.