

For research use only

## Anti Rat Macrophage/Dendritic Cells Monoclonal Antibody ( Clone No. RM-4 )

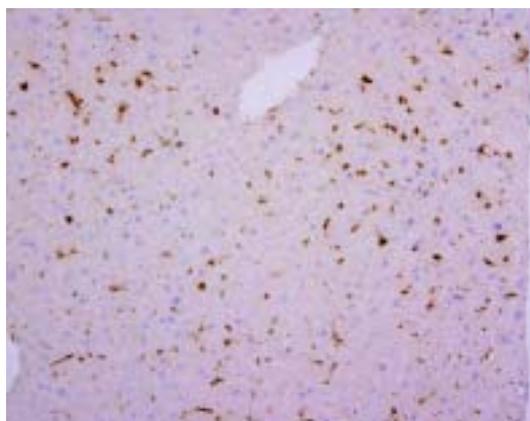
This anti-rat macrophage/dendritic cells monoclonal antibody, RM-4, was produced by using a homogenate of silica-induced lung granulomas of rat as immunogen. Immunohistochemistry demonstrated that RM-4 is specific for rat macrophages and dendritic cell populations in various organs and tissues.

In both cryostat sections and formalin-fixed paraffin sections, this antibody recognizes the antigen, of which molecular weight is 46kDa, presenting on the membrane of endosomes and lysosomes in macrophages and dendritic cells.

Thus, this antibody is very useful for not only in discriminating macrophage/dendritic cells from various cell populations but also in identifying endosomes and lysosomes.

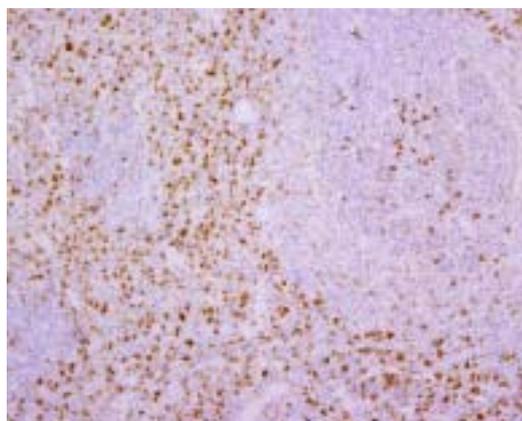
Package Size	50 $\mu$ g (200 $\mu$ L / viaL)
Format	Mouse monoclonal antibody 0.25mg/mL
Buffer	Block Ace as a stabilizer, containing 0.1% Proclin as a bacteriostat
Storage	Store below $-20^{\circ}$ C Once thawed, store at $4^{\circ}$ C. Repeated freeze-thaw cycles should be avoided
Clone No.	RM-4
Subclass	IgG1
Purification method	The splenic lymphocytes from BALB/c mouse, immunized with homogenate of silica-induced lung granuloma of rat, were fused to myeloma NS-1 cells. The screening of the hybridoma cells was performed on cryostat sections of rat spleens. The hybridoma cell line (RM-4) with positive reaction was grown in ascitic fluid of BALB/c mouse, from which the antibody was purified by Protein G affinity chromatography.

Working dilution for immunohistochemistry: 10  $\mu$ g/mL on frozen sections and paraffin sections.



Rat liver (frozen section):

Kupffer cells are positively stained



Rat spleen (frozen section):

Macrophages in red pulp and white pulp were positively stained.

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### 【Specificity】

RM-4 positive cells

Organs/Tissues	Positive Cells
Spleen	Red pulp macrophages White pulp TBMs IDCs in PALS Marginal zone macrophages Marginal metallophils
Lymph nodes	TBMs in follicles IDCs in paracortical areas Sinus macrophages
Thymus	Macrophages in cortex and medulla IDCs in medulla
Lungs	Alveolar macrophages Interstitial macrophages
Omentum	Rounded macrophages Twisted spindle shaped macrophages
Peyer's patches	Macrophages in the lymphoid follicle Dendritic cells in the interfollicular area
Skin	LCs Dermal macrophages
Brain	Microglial cells in the parenchyma Macrophages in the subarachnoid spaces Macrophages in the perivascular space
Connective tissue	Macrophages
Peritoneal cavity	Peritoneal macrophages

TBM=tingible body macrophages; **IDCs=interdigitating cells**;  
PALS=periarteriolar lymphatic sheath; LCs=Langerhans cells.

### 【References】

- Iyonaga K., Takeya M., Yamamoto T., Ando M., Takahashi K. (1997) A novel monoclonal antibody, RM-4, specifically recognizes rat macrophages and dendritic cells in formalin-fixed, paraffin-embedded tissues. *Histochem J.* 29:105-116

#### Manufacturer



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