

OriGene Technologies, Inc.

9620 Medical Center Drive, Ste 200 Rockville, MD 20850 UNITED STATES Phone: +1-888-267-4436 Fax: +1-301-340-8606 techsupport@origene.com

OriGene Technologies GmbH

Schillerstr. 5 32052 Herford GERMANY Phone: +49-5221-34606-0 Fax: +49-5221-34606-11 info-de@origene.com

BM4037B Monoclonal Antibody to Macrophages - Purified

Alternate names: Macrophage marker

Quantity: 0.1 mg

Background: Monoclonal antibody PM-2K, together with X-4 and X-14, forms a particular group of

macrophage specific antibodies which were tested at the Vth Leukocyte Typing Workshop. The PM-2K antigen was initially suspected to function as a scavenger receptor. However, experiments with CHO cells expressing Macrophage Scavenger

Receptor (MSR) Al or All showed no reactivity with this antibody.

Host / Isotype: Mouse / IgG1

Recommended Isotype

Controls:

SM10P (for use in human samples), AM03095PU-N

Clone: PM-2K

Immunogen: Cultured human peritoneal macrophages

Format: State: Lyophilized affinity purified Ig fraction

Purification:

Buffer System: Phosphate buffered saline pH 7.2 (PBS)

Preservatives: 0.05 % (v/v) Kathon CG

Stabilizers: 5 mg/ml bovine serum albumin (BSA)

Reconstitution: Reconstitute by adding 0.5 ml distilled water.

Applications: Immunohistochemistry on frozen section: 0.2 mg/ml (1:1000).

Suggested positive control: Human tonsil.

Does not react on routinely processed paraffin sections.

Other applications not tested. Optimal dilutions are dependent on conditions and

should be determined by the user.

Specificity: This antibody detects Macrophages.

Antigen distribution: Isolated cells: Positive on >90% of alveolar macrophages, and on 10% of adherent peritoneal cells after 1 day culture. Negative on dendritic cells, on freshly isolated blood monocytes or peritoneal cells; and on bone marrow cells

including monocytes, myelomonocytic precursors and megakaryocytes.

Tissue sections: PM-2K stains most tissue macrophages in lymphoreticular organs such as thymus, spleen, lymph node and tonsil. It is positive on Kupffer cells of the liver, alveolar macrophages and macrophages in the interstitial tissues of the kidney,

pancreas and many other organs. Proliferating macrophages are positive in

Gaucher's disease, multicentric reticulohistiocytosis and malignant histiocytosis. In MFH infiltrating macrophages are stained but not tumour cells. Some bone stromal cells but not osteoclast - like multinucleated giant cells are stained in GCT. Microglial cells, osteoclasts and dendritic cells such as Langerhans cells, interdigitating cells

and follicular dendritic cells are nega tive.

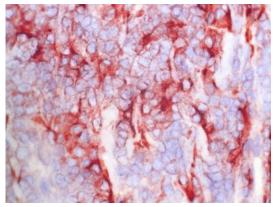
Species Reactivity: Tested: Human, Cat, Dog, Pig, Cow, and Monkey. Negative in Rabbit, Rat, Guinea pig,

Gold hamster, Goat, and Horse.

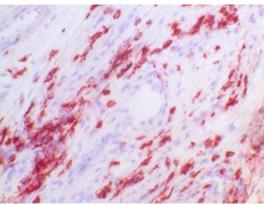


Pictures:

Immunohistochemistry on frozen sections: Clone RM2K (Biotin) on Human tonsil.



Immunohistochemistry on frozen sections: Clone RM2K (Biotin) on Human tonsil.



Comparison of Staining Patterns of X-4, X-14 and PM-2K on different cell types

| | X-4 | X-14 | PM-2K |
|---------------------------|----------|------|----------|
| Lymph nodes | | | |
| tingible body macrophages | ± | - | ± |
| Brain | | | |
| microglial cells | <u>+</u> | - | <u>+</u> |
| Blood monocytes | | | |
| 24h culture | <u>+</u> | - | - |

^{+ =} positive, ± = weakly positive, - = negative