**OriGene Technologies, Inc.**
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

# Product datasheet for BM4037

## Macrophages Mouse Monoclonal Antibody [Clone ID: PM-2K]

### Product data:

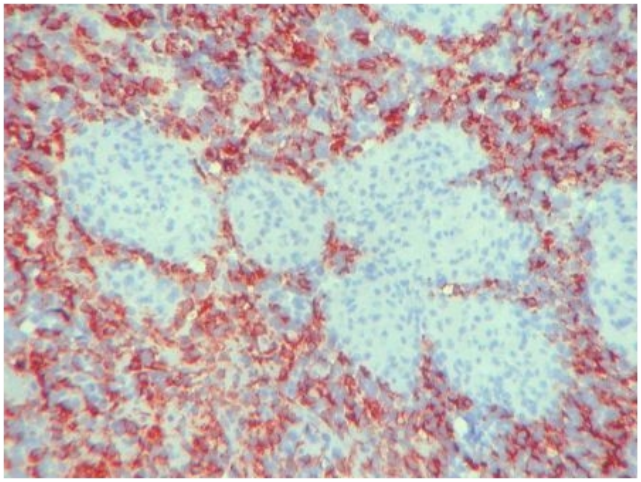
| | |
|---|---|
| **Product Type:** | Primary Antibodies |
| **Clone Name:** | PM-2K |
| **Applications:** | IHC |
| **Recommended Dilution:** | **Immunohistochemistry on Frozen Sections:** 0.2 µg/ml (1/100)<br>Does not react on routinely processed Paraffin Sections.<br>***Suggested Positive Control:*** Human tonsil. |
| **Reactivity:** | Bovine, Canine, Feline, Human, Monkey, Porcine |
| **Host:** | Mouse |
| **Isotype:** | IgG1 |
| **Clonality:** | Monoclonal |
| **Immunogen:** | 24h cultivated Human peritoneal Macrophages |

| | |
|---|---|
| **Specificity:** | This antibody Clone PM-2K, together with X-4 (Cat.-No BM4035) and X-14 (*Cat.-No* BM4036), forms a particular group of macrophage specific antibodies which were classified at the V Leukocyte Typing Workshop held in Boston in 1993. PM-2K recognises tissue macrophages and macrophages in proliferative disorders of macrophages. PM-2K is one of the markers that, being negative on dendritic cells, can differentiate between macrophages and dendritic cells.<br>Under non-reducing conditions PM-2K recognizes an antigen of 150kD (Western blot) which has been shown to be on cytoplasmic membranes.<br>**Antigen Distribution**<br>**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.<br>**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. In Gaucher's disease multicentric reticulohistiocytosis and malignant histiocytosis proliferating macrophages are positive. 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 negative. |
| **Formulation:** | PBS, pH 7.2 with 5 mg/ml BSA as a stabilizer and 0.05% Kathon as a preservative<br>State: Purified<br>State: Lyophilized purified Ig fraction |
| **Reconstitution Method:** | Restore with 0.5 ml distilled water. |
| **Concentration:** | 0.2 mg/ml (after reconstitution) |
| **Purification:** | Affinity Chromatography |
| **Conjugation:** | Unconjugated |
| **Storage:** | Store lyophilized at 2-8°C for 6 months or at -20°C long term.<br>After reconstitution store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C long term.<br>Avoid repeated freezing and thawing. |
| **Stability:** | Shelf life: one year from despatch. |
| **Synonyms:** | Macrophage marker |

Note:

Protocol: **Protocol with frozen, ice-cold acetone-fixed sections**
The whole procedure is performed at room temperature
1. Wash in PBS
2. Block endogenous peroxidase
3. Wash in PBS
4. Block with 10% normal goat serum in PBS for 30min. in a humid chamber
5. Incubate with primary antibody (dilution see datasheet) for 1h in a humid chamber
6. Wash in PBS
7. Incubate with secondary antibody (peroxidase-conjugated goat anti mouse IgG+IgM (H+L) minimal-cross reaction to human) for 1h in a humid chamber
8. Wash in PBS
9. Incubate with AEC substrate (3-amino-9-ethylcarbazol) for 12min.
10. Wash in PBS
11. Counterstain with Mayer's hemalum.

## Product images:



Immunohistochemistry. BM4037 Macrophages antibody staining of Swine Spleen Frozen Section

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

Table 1. Comparison of Staining Patterns of X-4 ([BM4035]), X-14 ([BM4036]) and PM-2K (BM4037) on different cell types.

+ = positive, ± = weakly positive, - = negative