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 BM4019

Ly6c1 Rat Monoclonal Antibody [Clone ID: ER-MP20]

Product data:

Product Type:	Primary Antibodies
Clone Name:	ER-MP20
Applications:	FC, IHC
Recommended Dilution:	**Immunohistochemistry on Frozen Sections:** 0.25 µg/ml (1/800) - 0.5 µg/ml (1/400). **Immunohistochemistry on Paraffin Sections:** 0.5 µg/ml (1/400) - 1 µg/ml (1/200). Proteinase K pretreatment for antigen retrieval is recommended. ***Suggested Positive Control:*** Mouse spleen. Has been described to work in**FACS**.
Reactivity:	Mouse
Host:	Rat
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	Mouse macrophage cell lines. **Antigen/Epitope:** The antigen is a glutaraldehyde (0.05%) and paraformaldehyde (1%) resistant 14kD surface protein which is very similar to Ly-6C and may be analogous to Human CD59. It is inducible by IFN-alpha, IFN-beta and IFN-gamma.

View online »

Specificity:	This Monoclonal antibody ER-MP20 is useful for the detection of macrophage precursor cells in the mid-stage development stage (late CFU-M, monoblasts and monocytes). It is ideally suitable for the detection of monocytes in bone marrow samples by FACS. ER-MP20 also identifies activated macrophages in inflammatory tissues where the simultaneous use of the murine pan-macrophage marker BM8 (anti F4/80 antibody BM4007) is recommended. ER-MP20 also detects a wide range of endothelial cells. **Antigen Distribution on Isolated cells:** In bone marrow cells the antigen is found on monoblasts and late CFU-M cells as well as on monocytes. It is also found on granulocytes and a subpopulation of lymphocytes in the peripheral blood. Granulocytic cells show a dull, and monocytic cells a bright antigen surface expression. Lymphoid cells express the antigen only very weakly. Thus, in the bone marrow three useful FACS windows can be defined for cell sorting purposes. **Antigen Distribution on Tissue Sections:** The antigen is found on macrophage precursor subpopulations in the bone marrow and hemopoietic islands of the lymphoid organs, and in the spleen. Endothelial cells of small vessels in various organs also stain positive with ER-MP20. Activated macrophages in inflammatory tissues also express the ER-MP20-related antigen.
Formulation:	PBS, pH 7.2 State: Purified State: Lyophilized purified Ig fraction Stabilizer: 6 mg/ml BSA Preservative: 0.05% (v/v) Kathon CG
Reconstitution Method:	Restore with 0.5 ml distilled water.
Concentration:	0.2 mg/ml
Purification:	Affinity Chromatography
Conjugation:	Unconjugated
Storage:	Store lyophilized at 2-8°C for 6 months or at -20°C long term. After reconstitution store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C long term. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	lymphocyte antigen 6 complex, locus C1
Database Link:	Entrez Gene 17067 Mouse P0CW02

Background: Ly-6C is a member of the Ly-6 multigene family of type V glycophosphatidylinositol-anchored cell surface proteins. It is expressed on bone marrow cells, monocytes/macrophages, neutrophils, endothelial cells, and T-cell subsets. Mice with the Ly-6.2 allotype (e.g., AKR, C57BL, C57BR, C57L, DBA/2, PL, SJL, SWR, 129) have subsets of CD4+Ly-6C+ and CD8+Ly-6C+ cells, while Ly-6.1 strains (e.g., A, BALB/c, CBA, C3H/He, DBA/1, NZB) have only CD8+Ly-6C+ lymphocytes. Ly-6C may play a role in the development and maturation of lymphocytes.

Synonyms: Lymphocyte antigen 6C2, Ly-6C2, Ly6C2, Mouse 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 rat IgG (H+L) minimal-cross reaction to mouse) 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.

Protocol with formalin-fixed, paraffin-embedded sections:
The whole procedure is performed at room temperature.
1. Deparaffinize and rehydrate tissue section.
2. Incubate the tissue section with proteinase K for 7 min.
3. Wash in distilled water.
4. Block endogenous peroxidase.
5. Wash in PBS.
6. Block with 10% normal goat serum in PBS for 30min. in a humid chamber.
7. Incubate with primary antibody (dilution see datasheet) for 1h in a humid chamber.
8. Wash in PBS.
9. Incubate with secondary antibody (peroxidase-conjugated goat anti rat IgG (H+L) minimal-cross reaction to mouse) for 1h in a humid chamber.
10. Wash in PBS.
11. Incubate with AEC substrate (3-amino-9-ethylcarbazol) for 12min.
12. Wash in PBS.
13. Counterstain.

Product images:

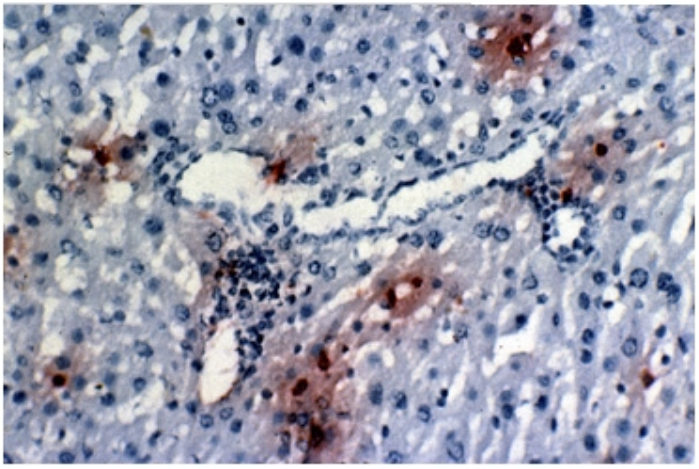

Figure 1. Immunohistochemistry on Mouse Liver Sections using Monoclonal antibody (ER-MP20)

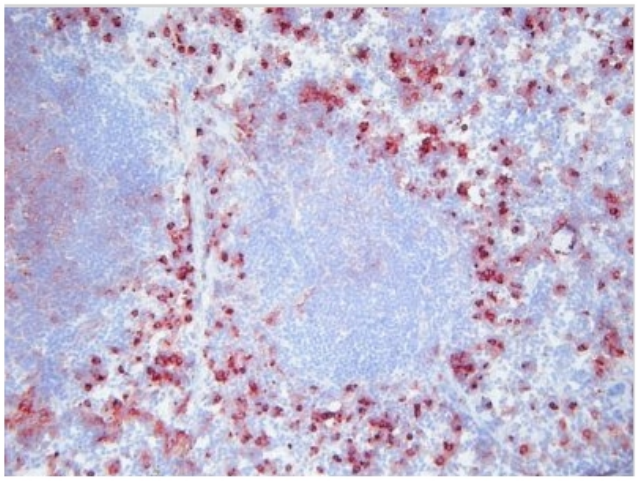

Figure 2. Immunohistochemistry on Mouse spleen Frozen Sections using Monoclonal antibody (ER-MP20)