

Product datasheet

Anti-Ly6c antibody [ER-MP20] ab15627

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Overview

Product name	Anti-Ly6c antibody [ER-MP20]
Description	Rat monoclonal [ER-MP20] to Ly6c
Host species	Rat
Specificity	ab15627 recognizes murine Ly6C, a 14kD differentiation antigen, which is expressed on macrophage/dendritic cell precursors in midstage development (late CFUM, monoblasts and immature monocytes), granulocytes, and on a wide range of endothelial cells and subpopulations of B and T lymphocytes. It is ideally suited for the detection of monocytes in bone marrow samples by FACS. It also identifies activated macrophages in inflammatory tissues where the simultaneous use of the murine pan-macrophage marker is recommended.
Tested applications	Suitable for: IHC-P, IHC-Fr
Species reactivity	Reacts with: Mouse
Immunogen	Tissue, cells or virus corresponding to Mouse Ly6c. Also; SwissProt ID P0CW03. Database link: P0CW02
Epitope	Spleen cells from immunised rats were fused with cells of the Y3Ag1.2.3 myeloma cell line.
Positive control	Monoblasts, late CFU M cells, monocytes, granulocytes. 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. Activated macrophages in inflammatory tissues.
General notes	ab15627 is useful for the detection of macrophage precursor cells in the mid-stage development stage (late CFU-M, monoblasts and monocytes). It is highly suitable for the detection of monocytes in bone marrow samples by FACS. ab15627 also identifies activated macrophages in inflammatory tissues where the simultaneous use of the murine pan-macrophage marker BM8 is recommended. ab15674 also detects a wide range of endothelial cells.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Preservative: 0.01% Thimerosal (merthiolate) Constituents: PBS, 1% BSA

Purity	Protein G purified
Purification notes	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
Primary antibody notes	CD59, an LY6 like protein expressed in human lymphoid cells, regulates the action of the complement membrane attack complex on homologous cells. It is a potent inhibitor of the complement membrane attack complex action. It acts by binding to the C8 and/or C9 complements of the membrane attack complex, thereby preventing incorporation of the multiple copies of C9 required for complete formation of the osmolytic pore. This inhibitor appears to be species-specific. CD59 is also involved in signal transduction for T-cell activation complexed to a protein tyrosine kinase. ab15627 is useful for the detection of macrophage precursor cells in the mid-stage development stage (late CFU-M, monoblasts and monocytes). It is highly suitable for the detection of monocytes in bone marrow samples by FACS. ab15627 also identifies activated macrophages in inflammatory tissues where the simultaneous use of the murine pan-macrophage marker BM8 is recommended. ab15674 also detects a wide range of endothelial cells.
Clonality	Monoclonal
Clone number	ER-MP20
Myeloma	Y3/Ag1.2.3
Isotype	IgG2a

Applications

Our [Abpromise guarantee](#) covers the use of **ab15627** in the following tested applications.

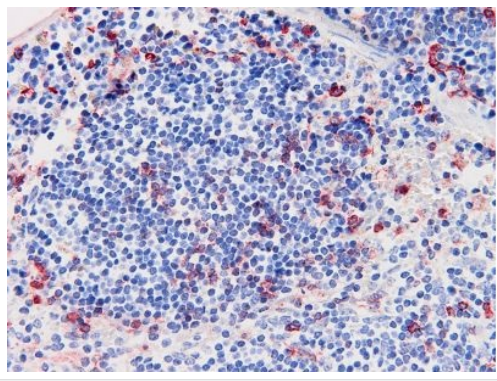
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P	★★★★★	Use a concentration of 0.5 µg/ml.
IHC-Fr		Use at an assay dependent concentration.

Target

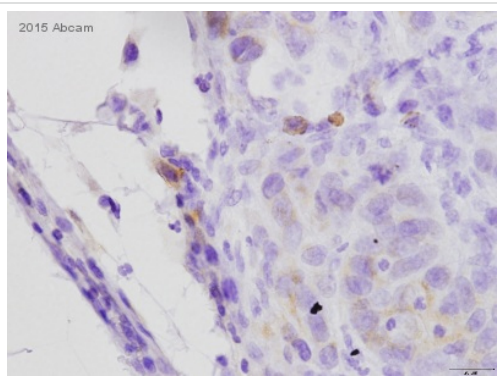
Relevance	Ly6C is a monocyte/macrophage and endothelial cell differentiation antigen regulated by interferon gamma, and may play a role in the development and maturation of lymphocytes. It is a member of the Ly6 multigene family of type V glycoposphatidylinositol anchored cell surface proteins. It is expressed on bone marrow cells, monocytes/macrophages, neutrophils, endothelial cells, and T cell subsets. Mice with the Ly6.2 allotype (e.g., AKR, C57BL, C57BR, C57L, DBA/2, PL, SJL, SWR, 129) have subsets of CD4+Ly6C+ and CD8+Ly6C+ cells, while Ly6.1 strains (e.g., A, BALB/c, CBA, C3H/He, DBA/1, NZB) have only CD8+Ly6C+ lymphocytes.
Cellular localization	Cell membrane; Lipid-anchor, GPI-anchor.

Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ly6c antibody [ER-MP20] (ab15627)

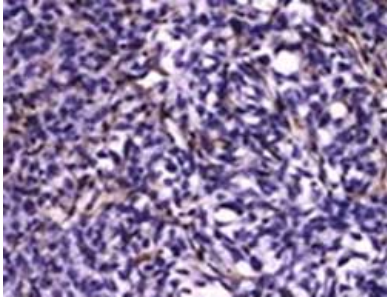
ab15627 staining Ly6c in Mouse spleen tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Antigen retrieval was by proteinase K pretreatment. Samples were incubated with primary antibody (1/400).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ly6c antibody [ER-MP20] (ab15627)

This image is courtesy of an anonymous Abreview

ab15627 staining Ly6c in Mouse tumor stroma tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with paraformaldehyde, permeabilized with Tween-20 and blocked with 1% BSA for 2 hours at room temperature; antigen retrieval was by heat mediation in citrate pH6. Samples were incubated with primary antibody (1/100 in 1% BSA + 1% FBS) for 16 hours. An undiluted HRP-conjugated goat anti-rat IgG polyclonal was used as the secondary antibody. A Avidin / Streptavidin amplification kit was used followed by DAB development.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ly6c antibody [ER-MP20] (ab15627)

Image from Lu X et al, J Biol Chem. 2009 Oct 16;284(42):29087-96. Epub 2009 Aug 31, Fig 2. DOI 10.1074/jbc.M109.035899

ab15627 staining Ly6c in murine lung tissue by Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections).

Lungs were excised, fixed in 10% neutral-buffered formalin and embedded in paraffin for hematoxylin and eosin staining.

Immunohistochemical analysis was performed with heat-induced antigen retrieval.

Biotinylated secondary antibody was used with an ABC kit and DAB detection kit to reveal the positively stained cells with nuclei counterstained with hematoxylin.

Scale bar 200 μ m.

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