

## Technical Data Sheet

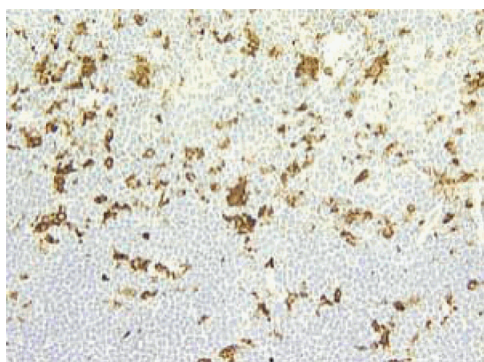
## Purified Mouse Anti-Rat Mononuclear Phagocyte

## Product Information

Material Number:	550305
Size:	1.0 ml
Concentration:	15.625 µg/ml
Clone:	1C7
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Rat
Storage Buffer:	Aqueous buffered solution containing BSA, goat serum, and ≤0.09% sodium azide.

## Description

The 1C7 antibody reacts with an antigen found on almost all cells of the mononuclear phagocyte system. Its cellular distribution is reported to be identical to that of CD68 (ED1 Antigen), which has been detected on tissue macrophages, dendritic cells, osteoclasts, resident peritoneal macrophages, alveolar macrophages, and peripheral blood monocytes, but not on granulocytes or lymphocytes. The distribution of ED1+ myeloid cells is similar to that of RT1B (rat I-A equivalent), and all ED1+ cells have acid phosphatase activity.



**Immunohistochemical staining of rat mononuclear phagocytes.** Frozen section of the rat thymus was stained with Purified Mouse Anti-Rat Mononuclear Phagocyte (Cat. No. 550305) antibody. Macrophages and dendritic cells positive for the ED1 like antigen can be identified by the brown labeling of their cell surface membranes. Amplification 20X.

## Preparation and Storage

Store undiluted at 4°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

## Application Notes

## Application

Flow cytometry	Routinely Tested
Immunohistochemistry-frozen	Tested During Development
Immunohistochemistry-paraffin	Not Recommended

## Recommended Assay Procedure:

**Immunohistochemistry:** The 1C7 antibody is recommended to test for immunohistochemical staining of acetone-fixed frozen sections. Tissues tested were rat spleen and thymus. The antibody stains macrophages, monocytes, and dendritic cells. The isotype control recommended for use with this antibody is purified mouse IgG1 (Cat. No. 550878). For optimal indirect immunohistochemical staining, the 1C7 antibody should be titrated (1:10 to 1:50 dilution) and visualized via a three-step staining procedure in combination with biotinylated polyclonal anti-mouse Ig (multiple adsorbed) (Cat. No. 550337) as the secondary antibody and Streptavidin-HRP (Cat. No. 550946) together with the DAB detection system (Cat. No. 550880). For more protocol information please visit <http://www.bdbiosciences.com/resources/cellbiology/index.jsp> This product is not recommended to be used on formalin fixed paraffin tissue sections.

## Suggested Companion Products

Catalog Number	Name	Size	Clone
550878	Purified Mouse IgG1 κ Isotype Control	1.0 ml	MOPC-31C
550337	Biotin Goat Anti-Mouse Ig (Multiple Adsorption)	1.0 ml	Polyclonal
550946	Streptavidin HRP	50 ml	(none)

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550880	DAB Substrate Kit	500 tests	(none)
559148	Antibody Diluent for IHC	125 ml	(none)
551011	Anti-Mouse Ig HRP Detection Kit	200 tests	(none)

## Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. An isotype control should be used at the same concentration as the antibody of interest.
5. Sodium azide is a reversible inhibitor of oxidative metabolism; therefore, antibody preparations containing this preservative agent must not be used in cell cultures nor injected into animals. Sodium azide may be removed by washing stained cells or plate-bound antibody or dialyzing soluble antibody in sodium azide-free buffer. Since endotoxin may also affect the results of functional studies, we recommend the NA/LE (No Azide/Low Endotoxin) antibody format, if available, for in vitro and in vivo use.
6. This antibody has been developed for the immunohistochemistry application. However, a routine immunohistochemistry test is not performed on every lot. Researchers are encouraged to titrate the reagent for optimal performance.
7. Please refer to [www.bdbiosciences.com/pharming/en/protocols](http://www.bdbiosciences.com/pharming/en/protocols) for technical protocols.

## References

de Jong, M. W. A. The 1C7 antibody reacts with an antigen found on almost all cells of the mononuclear phagocyte system. . (Biology)

Dijkstra CD, Döpp EA, Joling P, Kraal G. The heterogeneity of mononuclear phagocytes in lymphoid organs: distinct macrophage subpopulations in the rat recognized by monoclonal antibodies ED1, ED2 and ED3. *Immunology*. 1985; 54(3):589-599. (Biology)

van Goor H, Harms G, Gerrits PO, Kroese FG, Poppema S, Grond J. Immunohistochemical antigen demonstration in plastic-embedded lymphoid tissue. *J Histochem Cytochem*. 1988; 36(1):115-120. (Biology)

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