

Technical Data Sheet

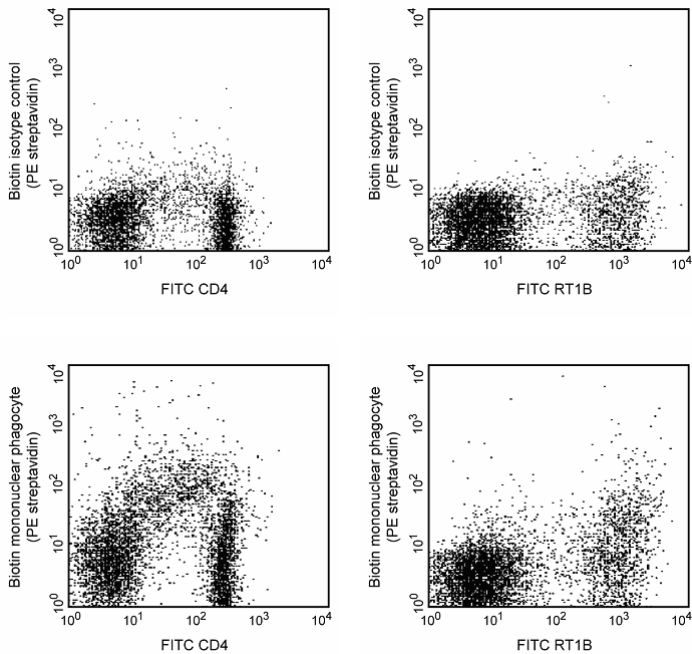
Biotin Mouse Anti-Rat Mononuclear Phagocyte

Product Information

Material Number:	559992
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	1C7
Immunogen:	Not reported
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Rat
Storage Buffer:	Aqueous buffered solution containing ≤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.



**Two-color evaluation of splenic mononuclear phagocytes.**  
Single-cell suspensions of LOU splenocytes were simultaneously stained with biotinylated 1C7 antibody (bottom panels) or biotinylated mouse IgG1 isotype control mAb (Top panels), and FITC-conjugated anti-rat CD4 mAb OX-35 Left top and bottom panels, Cat. no. 554837, or FITC- conjugated anti-rat RT1B mAb OX-6 (Right top and bottom panels, Cat. no. 554928), followed by Streptavidin-PE (all panels, Cat. no. 554061). Mononuclear phagocytes are CD4-dim and RT1B-positive. Flow cytometry was performed on a BD FACScan™ flow cytometry system.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. The antibody was conjugated with biotin under optimum conditions, and unreacted biotin was removed. Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application

Flow cytometry	Routinely Tested
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**Recommended Assay Procedure:**

It is recommended that Rat BD Fc Block™ purified anti-rat CD32 mAb D34-485 (Cat. no. 550270/550271) be used to block cells prior to immunofluorescent staining with biotinylated 1C7 mAb in order to reduce non-specific staining.

**Suggested Companion Products**

Catalog Number	Name	Size	Clone
550270	Purified Mouse Anti-Rat CD32	0.1 mg	D34-485
550615	Biotin Mouse IgG1 κ Isotype Control	0.25 mg	MOPC-31C
554061	PE Streptavidin	0.5 mg	(none)
554837	FITC Mouse Anti-Rat CD4	0.5 mg	OX-35
554928	FITC Mouse Anti-Rat RT1B	0.5 mg	OX-6

**Product Notices**

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to [www.bdbiosciences.com/pharming/en/protocols](http://www.bdbiosciences.com/pharming/en/protocols) for technical protocols.
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.

**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)