Technical Data Sheet

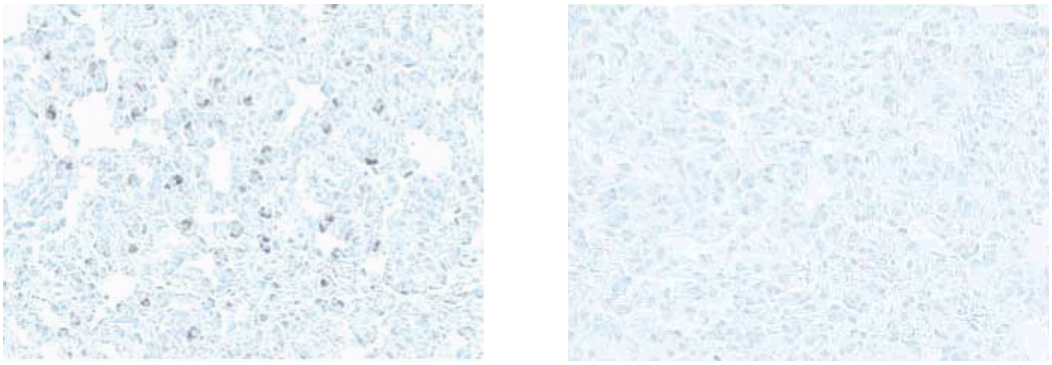
Purified Rat Anti-Mouse CD107b

Product Information

Material Number:	**550292**
Alternate Name:	CD107b; Lamp2; LAMP-2; Lysosome-associated membrane glycoprotein 2; LGP-B
Size:	1 mL
Concentration:	31.25 µg/ml
Clone:	M3/84
Immunogen:	Mouse C57Bl/6 peritoneal exudate cells
Isotype:	Rat (LEW x BN) IgG1, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing BSA, goat serum, and ≤0.09% sodium azide.

Description

The M3/84 monoclonal antibody specifically binds to CD107b which is also known as Mac-3, Lysosome-associated membrane protein 2 (LAMP-2/Lamp2/Lamp II), and Lysosomal membrane glycoprotein type B (LGP-B). CD107b is a single-pass type I transmembrane glycoprotein that constitutes a major integral membrane protein of lysosomes and may play a role in lysosomal function. CD107b is also expressed on the surface of mouse mononuclear phagocytes. Surface expression of the 92-110-kDa glycoprotein antigen increases during differentiation of monocytes to activated macrophages and may play a role in adhesion. The M3/84 mAb can detect CD107b antigen on tissue macrophages, thioglycollate-elicited peritoneal macrophages, and some myeloid cell lines, but not on lymphocytes or monocytes. In the bone marrow, very few cells display CD107b antigen on the surface, but a large proportion express cytoplasmic CD107b. The M3/84 antibody has also been reported to stain dendritic cells and endothelium in sections of thymus (both medulla and cortex), lymph nodes, spleen (white pulp), and gut-associated lymphoid tissue.



Immunohistochemical staining of macrophages. *The formalin-fixed paraffin-embedded sections of normal mouse lung were stained with M3/84 mAb (left panel) or R3-34 mAb (isotype control, right panel). Macrophages are identified by the brown labeling of their cell -surface membranes.*

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-paraffin	Tested During Development
Immunohistochemistry-zinc-fixed	Tested During Development
Immunohistochemistry-frozen	Reported
Immunoprecipitation	Reported

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Recommended Assay Procedure:

Immunohistochemistry: The M3/84 antibody is recommended to test for immunohistochemical staining of paraffin sections or zinc-fixed paraffin sections. No pretreatment of the formalin-fixed sections is required. Tissues tested were mouse lung, spleen, and thymus. The antibody stains tissue macrophages. The isotype control recommended for use with this antibody is purified rat IgG1 (Cat. No. 559072). For optimal indirect immunohistochemical staining, the M3/84 antibody should be titrated (1:10 to 1:50 dilution) and visualized via a three-step staining procedure in combination with biotinylated anti-rat IgG1/2a (multiple adsorbed) (Cat. No. 550325) as the secondary antibody Streptavidin-HRP (Cat. No. 550946) together with the DAB detection system (Cat. No. 550880). A detailed protocol of the immunohistochemical procedure can be found on our web site at **www.bdbiosciences.com/support/resources**.

Suggested Companion Products

Catalog Number	Name	Size	Clone
559072	Purified Rat IgG1, κ Isotype Control	0.25 mg	R3-34
550325	Biotin Mouse Anti-Rat IgG1/2a	1 mL	G28-5
550880	DAB Substrate Kit	500 Tests	(none)
550946	Streptavidin HRP	50 mL	(none)
559148	Antibody Diluent for IHC	125 mL	(none)
550523	IHC Zinc Fixative	1000 mL	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. An isotype control should be used at the same concentration as the antibody of interest.
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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
5. 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.
6. 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.
7. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

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