Purified Rat Anti-Mouse CD107b

Product Information

Material Number: 553322
Size: 0.5 mg
Concentration: 0.5 mg/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 ≤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.

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

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<th>Application</th>
<th>Recommended</th>
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<td>Flow cytometry</td>
<td>Routinely</td>
<td>Tested During</td>
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<tr>
<td>Immunohistochemistry-frozen</td>
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<td>Development</td>
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<td>Immunohistochemistry-formalin</td>
<td>Tested</td>
<td>(antigen retrieval</td>
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<td></td>
<td></td>
<td>required)</td>
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<td>Immunoprecipitation</td>
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Recommended Assay Procedure:

For flow cytometry of cell suspensions from peripheral lymphoid tissues, we recommend the use of Mouse Fc Block™ (purified anti-mouse CD16/CD32 mAb 2.4G2, Cat. No. 553141/553142). If Mouse Fc Block™ is used, it is important that the second-step antibody does not react with the 2.4G2 mAb (rat IgG2b, κ); we recommend FITC-conjugated anti-rat IgG1 mAb RG11/39.4 (Cat. No. 553892). For IHC, we recommend the use of purified M3/84 mAb in our special formulation for immunohistochemistry, Cat. No. 550292.

Suggested Companion Products

<table>
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<tr>
<td>553141</td>
<td>Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™)</td>
<td>0.1 mg</td>
<td>2.4G2</td>
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<tr>
<td>553892</td>
<td>FITC Mouse Anti-Rat IgG1</td>
<td>0.5 mg</td>
<td>RG11/39.4</td>
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<tr>
<td>550292</td>
<td>Purified Rat Anti-Mouse CD107b</td>
<td>1 mL</td>
<td>M3/84</td>
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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. 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.

References

(Immunoprecipitation)


