Purified Mouse Anti-Human Disialoganglioside GD3

**Product Information**

- **Material Number:** 554274
- **Alternate Name:** Ganglioside GD3
- **Size:** 0.1 mg
- **Concentration:** 0.5 mg/ml
- **Clone:** MB3.6
- **Immunogen:** FM9 human melanoma cell line
- **Isotype:** Mouse IgG3, κ
- **Reactivity:** QC Testing: Human
- **Storage Buffer:** Aqueous buffered solution containing protein stabilizer and ≤0.09% sodium azide.

**Description**

Gangliosides are sialic-acid bearing glycolipids expressed on the surface of all mammalian cells, and are likely involved in mediating cell-substratum interactions. They are important target antigens for antibody-mediated cytolysis of human melanoma and neuroblastoma cells. Human melanoma cells produce gangliosides GD2 and/or GD3 which are present in substratum-attached material, and may play a significant role in the melanoma metastatic phenotype. Ganglioside GD3 is a major surface marker on most human melanoma cells. MB3.6 has been used to localize GD3 in the plasma membrane and in focal adhesion plaques of human melanoma cells. Clone MB3.6 has also been shown to lyse GD3 positive human melanoma cells by both antibody-dependent and complement-mediated cytotoxicity, as well as inhibit the growth of human melanoma cells in athymic nude mice. Clone MB3.6 specifically reacts with human GD3 ganglioside. It does not cross-react with a variety of other gangliosides purified from melanoma or neuroblastoma cells. The FM9 human melanoma cell line was used as the immunogen.

**Preparation and Storage**

Store undiluted at 4°C.

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

**Application Notes**

<table>
<thead>
<tr>
<th>Application</th>
<th>Status</th>
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<tbody>
<tr>
<td>Flow cytometry</td>
<td>Routinely Tested</td>
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<tr>
<td>Immunohistochemistry-frozen</td>
<td>Reported</td>
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<tr>
<td>Immunofluorescence</td>
<td>Reported</td>
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<tr>
<td>Cytotoxicity</td>
<td>Reported</td>
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</table>

**Flow cytometric analysis of GD3 expression on M21 human melanoma cells.** Melanoma cells were stained with either Purified Mouse Anti-Human Disialoganglioside GD3 (Cat. No. 554274; filled histogram), or with Purified Mouse IgG3, κ Isotype Control (Cat. No.553486; empty histogram). Secondary staining was carried out with FITC Goat Anti-Mouse IgG/IgM (Cat. No. 555988). The fluorescence histograms were derived from gated events with the forward and side light-scattering characteristics of viable melanoma cells. Flow cytometry was performed on a BD FACScanTM.
Recommended Assay Procedure:
Applications include flow cytometry (1-2 µg/1x10^6 cells). Other applications not routinely tested at BD Biosciences Pharmingen include immunohistochemistry of frozen tissue sections, immunofluorescence microscopy of cultured cells and antibody-dependent and complement mediated cytotoxicity of GD3 positive cells.

Suggested Companion Products

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
</tr>
</thead>
<tbody>
<tr>
<td>555988</td>
<td>FITC Goat Anti-Mouse IgG/IgM</td>
<td>0.5 mg</td>
<td>Polyclonal</td>
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<tr>
<td>553486</td>
<td>Purified Mouse IgG3, κ Isotype Control</td>
<td>0.5 mg</td>
<td>A112-3</td>
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<tr>
<td>554656</td>
<td>Stain Buffer (FBS)</td>
<td>500 mL</td>
<td>(none)</td>
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<tr>
<td>554657</td>
<td>Stain Buffer (BSA)</td>
<td>500 mL</td>
<td>(none)</td>
</tr>
</tbody>
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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