Technical Data Sheet

PE Perforin Reagent Set

Product Information

Material Number: 556437
Reactivity: Human

Component: 51-65995X
Description: PE Mouse Anti-Human Perforin
Size: 100 tests (1 ea)
Vol. per Test: 20 µl
Clone Name: δG9
Immunogen: Purified Granules from the Human Lymphoma Cell Line YT
Isotype: Mouse (BALB/c) IgG2b, κ
Storage Buffer: Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Component: 51-66375X
Description: PE Mouse IgG2b, κ Isotype Control
Size: 100 tests (1 ea)
Vol. per Test: 20 µl
Clone Name: 27-35
Isotype: Mouse (C.SW) IgG2b, κ
Storage Buffer: Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

Perforin has a key role in cell-mediated cytotoxicity. It is a 70 kDa cytolytic protein that is expressed in the cytoplasmic granules of cytotoxic T lymphocytes (CTLs) and natural killer (NK) cells. CTLs are involved in eliminating virally infected cells, in anti-tumor immune responses, in allograft rejections, and in some autoimmune diseases. NK cells are important for tumor surveillance and destruction and are involved in allograft rejections. Cytotoxic cells release the contents of their cytotoxic granules, including perforin upon recognition of their target cell. In the presence of calcium, perforin forms transmembrane channels or pores in the membrane of the target cell leading to a cell death that resembles apoptosis. The ability to detect perforin-positive cells with specific antibody should be useful in identifying and understanding perforin-mediated reactions.

Clone δG9 reacts with human and bovine perforin. It does not cross-react with mouse perforin. Purified granules from the human lymphoma cell line YT were used as immunogen. Clone δG9 was initially characterized by immunoprecipitation and immunohistochemistry of frozen tissue sections. The antibody stains scattered lymphocytes in red pulp of spleen, and scattered infiltrated lymphocytes in lymphoma.

Profile of permeabilized peripheral blood lymphocytes analyzed on a BD FACScan™ (BDIS, San Jose, CA). Cells were stained with anti-human perforin-PE (clone δG9; shaded histogram) or with an IgG2b-R-PE isotype control.
Preparation and Storage
Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Application Notes

Intracellular staining (flow cytometry) Routinely Tested

Suggested Companion Products

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<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
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</thead>
<tbody>
<tr>
<td>554714</td>
<td>BD Cytofix/Cytoperm™ Fixation/Permeabilization Kit</td>
<td>250 tests</td>
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<tr>
<td>554723</td>
<td>Perm/Wash Buffer</td>
<td>100 ml</td>
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<tr>
<td>554722</td>
<td>Fixation and Permeabilization Solution</td>
<td>125 ml</td>
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Product Notices
1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 × 10^6 cells in a 100-µl experimental sample (a test).
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. 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.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
6. An isotype control should be used at the same concentration as the antibody of interest.

References