FITC Hamster Anti-Mouse Vγ 3 TCR

Product Information

Material Number: 553229
Size: 0.25 mg
Concentration: 0.5 mg/ml
Clone: 536
Immunogen: AKR mouse dendritic epidermal cell clone 7-17
Isotype: Syrian Hamster IgG1, κ
Reactivity: QC Testing: Mouse
Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The 536 monoclonal antibody specifically recognizes Vγ3 T-cell Receptor (TCR)-bearing T lymphocytes, which are the predominant γδ TCR-bearing cells in the early fetal thymus and the adult epidermis of euthymic mice. The first T cells to mature in the embryonic thymus express the Vγ3 and Vδ1 TCR chains, and their development is dependent upon IL-7. There is evidence that the Vγ3 TCR-bearing fetal thymocytes are the precursors of the majority of dendritic epidermal T cells (DEC), which may be replenished in the adult by proliferation in situ rather than by seeding from primary lymphoid organs. Although the Vγ3 TCR is almost exclusively found in the DEC population, it has been shown that the homing of DEC to the epidermis does not require expression of the Vγ3 gene segment. Vγ3 TCR-bearing dermal dendritic cells have also been described. Vγ3 TCR has also been found on a subset of T lymphocytes in the lactating mammary gland and at the site of antigenic challenge in contact-sensitized mice. Plate-bound 536 antibody activates Vγ3 TCR-bearing T cells, and Fab fragments of mAb 536 block in vitro stimulation of DEC by keratinocytes.

† Please note that the Vγ3 designation correlates with the nomenclature of Garman, Doherty, and Raulet; the Vγ5 designation of Heilig and Tonegawa is equivalent.

Preparation and Storage

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

Application Notes

Application

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<tr>
<th>Flow cytometry</th>
<th>Routinely Tested</th>
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<tr>
<td>Immunofluorescence</td>
<td>Reported</td>
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Suggested Companion Products

<table>
<thead>
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<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
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<tbody>
<tr>
<td>553971</td>
<td>FITC Hamster IgG1 κ Isotype Control</td>
<td>0.25 mg</td>
<td>A19-3</td>
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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to wwwbdbiosciencescompharmingenprotocols for technical protocols.
3. Although hamster immunoglobulin isotypes have not been well defined, BD Biosciences Pharmingen has grouped Armenian and Syrian hamster IgG monoclonal antibodies according to their reactivity with a panel of mouse anti-hamster IgG mAbs. A table of the hamster IgG groups, Reactivity of Mouse Anti-Hamster Ig mAbs, may be viewed at http://wwwbdbiosciencescomdocumentshamster_chart_11x17pdf.
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.

References


Kelly KA, Pearse M, Lefrancois L, Scolley R. Emigration of selected subsets of gamma delta + T cells from the adult murine thymus. Int Immunol. 1993; 5(4):331-335. (Biology)


Raulet DH, Spencer DM, Hsiang YH. Control of gamma delta T cell development. Immunology. 1991; 120:185-204. (Biology)

