Biotin Rat Anti-Mouse CD86

Product Information

Material Number: 557426
Alternate Name: B7-2
Size: 0.1 mg
Concentration: 0.5 mg/ml
Clone: PO3
Immunogen: BALB/c Mouse B Leukemia Cell Line BCL1
Isotype: Rat (SD) IgG2b, κ
Reactivity: QC Testing: Mouse

Description

The PO3 antibody reacts with the B7-2 (CD86) costimulatory molecule, which is expressed on a broad spectrum of leukocytes, including B lymphocytes, T lymphocytes, macrophages, dendritic cells, and Langerhans cells, plus astrocytes. CD86 is expressed at low levels by freshly explanted peripheral B and T cells, and its expression is substantially increased by a variety of T and B cell-specific stimuli with a peak expression after 18-42 hours of culture. In contrast to most naive CD4+ T cells, memory CD4+ T cells express B7-2, both at the mRNA and protein levels. CD86, a ligand for CD28 and CTLA-4, is one of the accessory molecules that plays an important role in T cell-B cell costimulatory interactions. It has been shown to be involved in immunoglobulin class switching and triggering of mouse NK cell-mediated cytotoxicity. CD80 (B7-1) is an alternate ligand for CD28 and CTLA-4. PO3 antibody blocks the in vitro stimulation of T-cell proliferation of T-cell proliferation by soluble anti-CD3e antibody (mAb 145-2C11, Cat. No. 553057) in the presence of CD86-expressing accessory cells. In vivo administration of PO3 mAb can inhibit much of the autoantibody production in (NZB x NZW) F1 mice; and in combination with an anti-CD80 mAb, it can prevent the development and progression of mouse systemic lupus erythematosus-like autoimmune disease.

Preparation and Storage

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

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
</tr>
</thead>
<tbody>
<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>554057</td>
<td>Avidin FITC</td>
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<td>553987</td>
<td>Biotin Rat IgG2b, κ Isotype Control</td>
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<td>A95-1</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 wwwbdbiosciencescom/pharmingen/protocols for technical protocols.
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.

References

Borriello F, Sethna MP, Boyd SD, et al. B7-1 and B7-2 have overlapping, critical roles in immunoglobulin class switching and germinal center formation. Immunity. 1997; 6(3):303-313.(Biology)
McAdam AJ, Schweitzer AN, Sharpe AH. The role of B7 co-stimulation in activation and differentiation of CD4+ and CD8+ T cells. Immunol Rev. 1998; 165:231-247.(Biology)