APC Rat Anti-Mouse CD44

**Product Information**

- **Material Number:** 559250
- **Alternate Name:** Pgp-1, H-CAM, Ly-24
- **Size:** 0.1 mg
- **Concentration:** 0.2 mg/ml
- **Clone:** IM7
- **Immunogen:** Dexamethasone-induced cells of the SJL mouse spontaneous myeloid leukemia
- **Isotype:** Rat IgG2b, κ
- **Reactivity:** QC Testing: Mouse
- **Storage Buffer:** Aqueous buffered solution containing ≤0.09% sodium azide.

**Description**

The IM7 antibody reacts with an epitope on both alloantigens and all isoforms of the CD44 glycoprotein (Pgp-1, Ly-24). The standard form of CD44, lacking variable exons and referred to as CD44H or CD44s, is widely expressed on hematopoietic and non-hematopoietic cells. CD44 isoforms encoded by variable exons are expressed on epithelial cells, but only at low levels on most leukocytes. Mice with the Ly-24.1 alloantigen (e.g., BALB/c, CBA/J, DBA/1, DBA/2) have relatively large subsets of CD44H+ T lymphocytes, while Ly-24.2 strains (e.g., A, AKR, CBA/N, C3H/He, C57BL, C57L, CB, SJL, SWR, 129) have few CD44H+ T cells. CD44 is a cell adhesion receptor, and its principal ligand, hyaluronate, is a common component of extracellular matrices. Differential glycosylation of CD44 influences its binding to hyaluronate. Additional ligands include the cell-surface form of CD74 and the cytokine osteopontin (Eta-1). Bone marrow- and thymus-derived progenitor cells capable of repopulating the thymus express CD44. In the periphery, the level of CD44 expression increases upon activation of B lymphocytes, CD4+ T cells, and CD8+ T cells; memory cells can be recognized by their CD44[hi] phenotype. The IM7 mAb inhibits established collagen-induced arthritis in DBA/1 mice. Moreover, it prevents CNS inflammation and clinical symptoms of experimental autoimmune encephalomyelitis. In contrast, the same antibody exacerbates experimental autoimmune thyroiditis in CBA/J mice.

**Preparation and Storage**

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

**Application Notes**

**Application**

- Flow cytometry Routinely Tested

**Suggested Companion Products**

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<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
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<td>APC Rat IgG2b, κ Isotype Control</td>
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<td>A95-1</td>
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</table>

**Product Notices**

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
3. This APC-conjugated reagent can be used in any flow cytometer equipped with a dye, HeNe, or red diode laser.
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**


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Naujokas MF, Murin M, Anderson MS, Peterson M, Miller J. The chondroitin sulfate form of invariant chain can enhance stimulation of T cell responses through interaction with CD44. Cell. 1993; 74(2):257-268. (Biology)


Parish NM, Brennan FR, Cooke A. Anti-CD44 treatment does not prevent the extravasation of autopathogenic T cells to the thyroid in experimental autoimmune thyroiditis. Immunology. 1999; 97(3):533-539. (Biology)


