Biotin Mouse Anti-Mouse Qa-1[b]

**Product Information**

- **Material Number:** 559829
- **Size:** 0.5 mg
- **Concentration:** 0.5 mg/ml
- **Clone:** 6A8.6F10.1A6
- **Immunogen:** Qa-1[b] aa. 161-179 Peptide
- **Isotype:** Mouse (B6-Tla(a)) IgG1, κ
- **Reactivity:** QC Testing: Mouse
- **Storage Buffer:** Aqueous buffered solution containing ≤0.09% sodium azide.

**Description**

The 6A8.6F10.1A6 monoclonal antibody reacts with the Qa-1[b] alloantigen, which is a nonclassical MHC class I (Class Ib) molecule encoded by the T23 gene of the H-2 complex. Qa-1 associates with β2-microglobulin and is expressed at low levels on most leukocytes and many other cell types. Its level of cell-surface expression is upregulated by IFNγ or specific peptides. Qa-1 is an oligomorphic molecule which presents a limited pool of peptides to T lymphocytes bearing qf and γδTCR and binds to a large subpopulation of NK cells. In fact, Qa-1[b] is the ligand for CD94/NKG2A, CD94/NKG2C, and CD94/NKG2E receptors, which are expressed on NK cells. Furthermore, it has been reported that Qa-1 expressed on activated B lymphocytes is involved in immunoregulation by inducing T-cell-mediated suppression of antibody responses. The 6A8.6F10.1A6 mAb can detect Qa-1[b] on activated splenocytes from C57BL/6 and BALB/c mice (both Qa-1[b]), but not from A/J mice (Qa-1[a]), and it can block target cell recognition by CTLs specific for Qa-1-presented antigen.

**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.

**Application Notes**

**Application**

- **Flow cytometry**: Routinely Tested

**Suggested Companion Products**

- **Catalog Number**: 554061
- **Name**: PE Streptavidin
- **Size**: 0.5 mg
- **Clone**: (none)

**Product Notices**

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
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**

- BD Biosciences Pharmingen. Unpublished results. (Biology)
- Vance RE, Jamieson AM, Raulet DH. Recognition of the class Ib molecule Qa-1(b) by putative activating receptors CD94/NKG2C and CD94/NKG2E on mouse natural killer cells. *J Exp Med.* 1999; 190(12):1801-1812. (Biology)

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Vance RE, Kraft JR, Altman JD, Jensen PE, Raulet DH. Mouse CD94/NKG2A is a natural killer cell receptor for the nonclassical major histocompatibility complex (MHC) class I molecule Qa-1(b). J Exp Med. 1998; 188(10):1841-1848. (Biology)