

Technical Data Sheet

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 $\leq 0.09\%$ 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 $\beta 2$ -microglobulin and is expressed at low levels on most leukocytes and many other cell types. Its level of cell-surface expression is upregulated by IFN γ or specific peptides. Qa-1 is an oligomeric molecule which presents a limited pool of peptides to T lymphocytes bearing $\alpha\beta$ and $\gamma\delta$ TCR 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
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Suggested Companion Products

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

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/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

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