

Technical Data Sheet

Purified NA/LE Mouse Anti-Mouse Qa-1[b]

Product Information

Material Number:	559827
Size:	0.5 mg
Concentration:	1.0 mg/ml
Clone:	6A8.6F10.1A6
Immunogen:	Qa-1[b] aa. 161-179 Peptide
Isotype:	Mouse (B6-T1a(a)) IgG1, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	No azide/low endotoxin: Aqueous buffered solution containing no preservative, 0.2 μ m sterile filtered. Endotoxin level is \leq 0.01 EU/ μ g (\leq 0.001 ng/ μ g) of protein as determined by the LAL assay.

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 β 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

Store undiluted at 4°C.

This preparation contains no preservatives, thus it should be handled under aseptic conditions.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Application Notes

Application

Flow cytometry	Routinely Tested
Blocking	Reported
Immunoprecipitation	Reported
Western blot	Reported

Recommended Assay Procedure:

Flow cytometry: Since this antigen is expressed at low density on the cell surface, it may be desirable to amplify staining by using a biotinylated second-step antibody (such as anti-mouse IgG1 mAb A85-1, Cat. No. 553441) followed by a "bright" third-step reagent such as PE Streptavidin (Cat. No. 554061).

Suggested Companion Products

Catalog Number	Name	Size	Clone
553441	Biotin Rat Anti-Mouse IgG1	0.5 mg	A85-1
554061	PE Streptavidin	0.5 mg	(none)

Product Notices

- Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

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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)