

Technical Data Sheet

Purified Rat Anti-Mouse CD18

Product Information

Material Number:	557437
Alternate Name:	Integrin β 2 chain
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	M18/2
Immunogen:	Mouse CTL glycoproteins
Isotype:	Rat IgG2a, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

Description

The M18/2 antibody reacts with the common β 2 chain of LFA-1 (CD11a/CD18, α L β 2 integrin), Mac-1 (CD11b/CD18, α M β 2 integrin), and gp150, 95 (CD11c/CD18, α X β 2 integrin). Expression of CD18 is limited to leukocytes, where it is widely distributed in consort with the three integrin α chains (CD11a, CD11b, and CD11c). Among splenocytes, NK cells have the highest density of CD18, and T lymphocytes express a higher density than the remaining cells. The β 2 integrins are important mediators of leukocyte-endothelium interactions. It has been reported that M18/2 antibody blocks *in vivo* metastasis of the LB lymphoma to the spleen and that it blocks *in vitro* formation of aggregates of LB cells and splenocytes. However, other reports indicate that mAb M18/2 has no effect on CTL-mediated killing, adherence of C3bi-sensitized erythrocytes to Mac-1, antigen-specific binding of T cells to antigen-producing cells, or rejection of cardiac allografts. Recent *in vitro* studies indicate that M18/2 antibody stimulates adhesion of Mac-1 to its ligands C3bi and ICAM-1, and it stimulates adhesion of LFA-1 to ICAM-1, but it has no effect upon the interactions of LFA-1 with ICAM-2 nor ICAM-3.

Preparation and Storage

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

Store undiluted at 4° C.

Application Notes

Application

Flow cytometry	Routinely Tested
Immunohistochemistry-formalin (antigen retrieval required)	Tested During Development
Immunohistochemistry-frozen	Tested During Development
Immunoprecipitation	Reported
Western blot	Reported
Blocking	Reported
Stimulation	Reported

Recommended Assay Procedure:

The alternative anti-CD18 mAb GAME-46 (Cat. No. 555280) is reported to block *in vitro* adhesion of LFA-1-expressing cells to the ligands ICAM-1, ICAM-2, and ICAM-3 and of Mac-1-expressing cells to ICAM-1, C3bi, and fibrinogen.

Suggested Companion Products

Catalog Number	Name	Size	Clone
553927	Purified Rat IgG2a, κ Isotype Control	0.5 mg	R35-95
554016	FITC Goat Anti-Rat Ig	0.5 mg	Polyclonal

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.

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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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