Technical Data Sheet

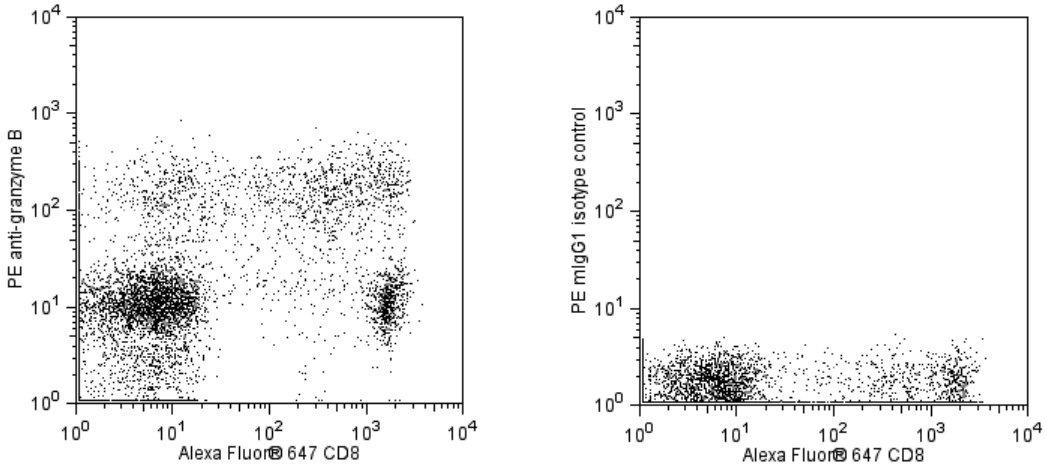
PE Mouse Anti-Human Granzyme B

Product Information

Material Number:	**561142**
Alternate Name:	GZMB; Granzyme-2; CCPI; CGL1; CSPB; CTLA1; CTSGL1; GRB; HLP; SECT
Size:	100 tests
Vol. per Test:	5 µl
Clone:	GB11
Immunogen:	Human Granzyme B
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The GB11 antibody specifically reacts with human granzyme B, a serine protease of approximately 32 kDa. Granzyme B is stored in the granules of cytotoxic T lymphocytes and NK cells along with the pore-forming protein perforin. In the classic model of target cell lysis, perforins create holes in the target cell membrane allowing entrance of granzymes. Granzyme B has been shown to act on specific substrates including caspase-3, -7, -9, and -10 which in turn give rise to enzymes that mediate apoptosis. Granzyme B may also be involved in the hydrolysis of extracellular matrix components. Detectable levels of granzyme B have been detected in sera from healthy volunteers. The immunogen used to generate the GB11 hybridoma was human granzyme B isolated from an NK cell line.



***Flow cytometric analysis of Granzyme B expression by peripheral blood lymphocytes**. Human PBMC were fixed with BD Cytofix™ Fixation Buffer (Cat. No. 554655) and permeabilized with BD Perm/Wash™ Buffer (Cat. No. 554723). The cells were then stained with Alexa Fluor® 647 Mouse Anti-Human CD8 (Cat. No. 557708) and either PE Mouse Anti-Human Granzyme B Antibody (Cat. No. 561142, Left Panel) or PE Mouse IgG1 Isotype Control (Cat. No. 555749, Right Panel) by using BD Biosciences Pharmingen's Staining Protocol. Two-color flow cytometric dot plots showing the correlated expression patterns of CD8 and Granzyme B or Mouse IgG1 Isotype Control staining were derived from gated events with the forward and side light-scatter characteristics of viable lymphocytes. Flow cytometry was performed using a BD LSR™ II Flow Cytometer System.*

Preparation and Storage

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

The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

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Application Notes

Application

Intracellular staining (flow cytometry)	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
554655	Fixation Buffer	100 ml	(none)
554723	Perm/Wash Buffer	100 ml	(none)
557708	Alexa Fluor® 647 Mouse Anti-Human CD8	100 tests	RPA-T8
555749	PE Mouse IgG1, κ Isotype Control	100 tests	MOPC-21
554656	Stain Buffer (FBS)	500 ml	(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.
4. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
5. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

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Spaeny-Dekking EH, Hanna WL, Wolbink AM et al. Extracellular granzymes A and B in humans: detection of native species during CTL responses in vitro and in vivo. *J Immunol.* 1998; 160:3610. (Biology)

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