

## Technical Data Sheet

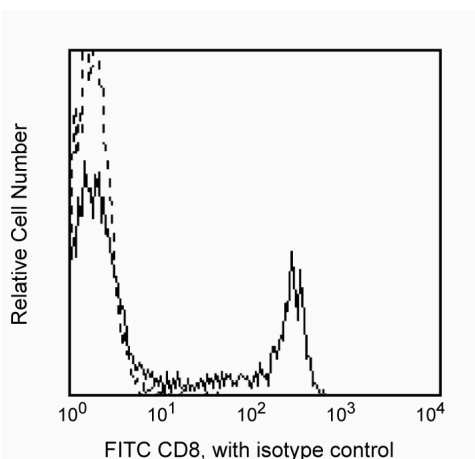
## FITC Mouse Anti-Human CD8

## Product Information

<b>Material Number:</b>	<b>561947</b>
<b>Alternate Name:</b>	CD8 $\alpha$ ; CD8A; CD8 alpha; Leu2; MAL; T8; p32
<b>Size:</b>	25 Tests
<b>Vol. per Test:</b>	20 $\mu$ l
<b>Clone:</b>	RPA-T8
<b>Isotype:</b>	Mouse IgG1, $\kappa$
<b>Reactivity:</b>	QC Testing: Human Tested in Development: Rhesus, Cynomolgus, Baboon IV T171; V T-CD08.03; VI 6T-CD8.1, 6T-081
<b>Workshop:</b>	
<b>Storage Buffer:</b>	Aqueous buffered solution containing BSA and $\leq 0.09\%$ sodium azide.

## Description

The RPA-T8 monoclonal antibody specifically binds to CD8 alpha (CD8 $\alpha$ ). CD8 $\alpha$  is a type I transmembrane glycoprotein and a member of the immunoglobulin superfamily. CD8 $\alpha$  is expressed by the majority of thymocytes, by subpopulations of  $\alpha\beta$  T cells and  $\gamma\delta$  T cells and by some NK cells. Cell surface CD8 $\alpha$  is expressed either as a disulfide-linked homodimer (CD8 $\alpha\alpha$ ) or as a heterodimer (CD8 $\alpha\beta$ ) when disulfide-bonded to a CD8 beta chain (CD8 $\beta$ ). CD8-positive  $\alpha\beta$  T cells coexpress both CD8 $\alpha\alpha$  homodimers and CD8 $\alpha\beta$  heterodimers whereas some  $\gamma\delta$  T cells and NK cells express CD8 $\alpha\alpha$  homodimers. CD8 plays important roles in T cell activation and selection. The extracellular IgSF domain of CD8 $\alpha$  binds to a non-polymorphic determinant on HLA class I molecules ( $\alpha 3$  domain) and enables CD8 to function as a co-receptor with MHC class I-restricted TCR during T cell recognition of antigen. The cytoplasmic domain of CD8 $\alpha$  associates with Lck, a Src family protein tyrosine kinase that is involved in intracellular signaling. The RPA-T8 and HIT8a (Cat. No. 555337) monoclonal antibodies are not cross-blocking.



Profile of peripheral blood lymphocytes analyzed on a BD FACScan™ (BDIS, San Jose, CA)

## Preparation and Storage

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

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

The antibody was conjugated with FITC under optimum conditions, and unreacted FITC was removed.

## Application Notes

## Application

Flow cytometry	Routinely Tested
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## Suggested Companion Products

Catalog Number	Name	Size	Clone
555748	FITC Mouse IgG1, $\kappa$ Isotype Control	100 Tests	MOPC-21
554656	Stain Buffer (FBS)	500 mL	(none)

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## Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use  $1 \times 10^6$  cells in a 100- $\mu$ l experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
5. Species testing during development may have been performed with a different format of the same clone. Selected applications have been tested for cross-reactivity.
6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at [www.bdbiosciences.com/colors](http://www.bdbiosciences.com/colors).
7. Please refer to [www.bdbiosciences.com/pharming/protocols](http://www.bdbiosciences.com/pharming/protocols) for technical protocols.

## References

Knapp W, Dörken B, Gilks WR, et al, ed. *Leucocyte Typing IV*. New York, NY: Oxford University Press; 1989:1-1182. (Biology)

Schlossman SF, Boumsell L, Gilks W, et al, ed. *Leucocyte Typing V*. New York: Oxford University Press; 1995. (Clone-specific)

Schlossman SF, Boumsell L, Gilks W, et al, ed. *Leucocyte Typing V: White Cell Differentiation Antigens*. Oxford: Oxford University Press; 1995. (Clone-specific)

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