Technical Data Sheet

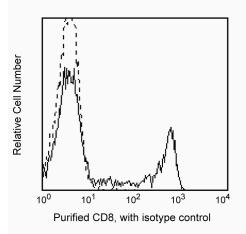
Purified Mouse Anti-Human CD8

Product Information

Material Number:	555364	
Alternate Name:	CD8α; CD8A; CD8 alpha; Leu2; MAL; T8; p32	
Size:	0.1 mg	
Concentration:	0.5 mg/ml	
Clone:	RPA-T8	
Isotype:	Mouse IgG1, κ	
Reactivity:	QC Testing: Human	
	Tested in Development: Rhesus, Cynomolgus, Baboon	
Workshop:	IV T171; V T-CD08.03; VI 6T-CD8.1, 6T-081	
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.	

Description

The RPA-T8 monoclonal antibody specifically binds to CD8 alpha (CD8a). CD8a is a type I transmembrane glycoprotein and a member of the immunoglobulin superfamily. CD8 α 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 CD8a is expressed either as a disulfide-linked homodimer (CD8aa) or as a heterodimer (CD8aβ) when disulfide-bonded to a CD8 beta chain (CD8\beta). CD8-positive a\beta T cells coexpress both CD8aa homodimers and CD8a\beta heterodimers whereas some γδ T cells and NK cells express CD8αα homodimers. CD8 plays important roles in T cell activation and selection. The extracellular IgSF domain of CD8a binds to a non-polymorphic determinant on HLA class I molecules (a3 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 CD8a associates with Lck, a Src family protein tyrosine kinase that is involved in intracellular signaling. The RPA-T8 and HIT8a monoclonal antibodies are not cross-blocking. This clone has been reported to react with a subset of peripheral blood lymphocytes, but not monocytes nor granuloyctes, of baboon and both rhesus and cynomolgus macaque monkey. In general, a higher frequency of CD8+ and CD4+CD8+ lymphocytes are observed in non-human primates compared to normal human donors.



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

Preparation and Storage

Store undiluted at 4°C.

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

Application Notes

Application									
Flow cytometry I					Routinely Tested	Routinely Tested			
Immunohistochemistry-frozen					Tested During Dev	Tested During Development			
Suggested	Companio	on Products	5						
Catalog Num	Catalog Number Name					Size	Clone		
555988		FITC Goat Anti-Mouse IgG/IgM				0.5 mg	Polyclonal		
555746		Purified Mouse IgG1, ĸ Isotype Control			ol	0.1 mg	MOPC-21		
BD Bioscie	nces								
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United States 877.232.8995	Canada 866.979.9408	Europe 32.2.400.98.95	Japan 0120.8555.90	Asia Pacific 65.6861.0633	Latin America/Caribbean 55.11.5185.9995				
For country cor	ntact informatio	on, visit bdbiosci	ences.com/conta	act					
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Product Notices

- 1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- 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. Sodium azide is a reversible inhibitor of oxidative metabolism; therefore, antibody preparations containing this preservative agent must not be used in cell cultures nor injected into animals. Sodium azide may be removed by washing stained cells or plate-bound antibody or dialyzing soluble antibody in sodium azide-free buffer. Since endotoxin may also affect the results of functional studies, we recommend the NA/LE (No Azide/Low Endotoxin) antibody format, if available, for in vitro and in vivo use.
- 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. Please refer to www.bdbiosciences.com/pharmingen/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. *Leukocyte Typing V: White Cell Differentiation Antigens*. Oxford: Oxford University Press; 1995. (Clone-specific) Schlossman SF, Boumsell L, Gilks W, et al, ed. *Leucocyte Typing V*. New York: Oxford University Press; 1995. (Clone-specific)

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