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CD8 α (RPA-T8) Mouse mAb (PE-Cy7[®] Conjugate)

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: FC-FP, FC-L	Reactivity: H	Sensitivity: Endogenous	Source/Isotype: Mouse IgG1	UniProt ID: #P01732	Entrez-Gene Id: 925
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Product Usage Information	Application	Dilution
	Flow Cytometry (Fixed/Permeabilized)	1:20
	Flow Cytometry (Live)	1:20
Storage	Supplied in 10 mM NaH ₂ PO ₄ , 150 mM NaCl, 0.09% NaN ₃ , 0.1% gelatin, pH7.2. This product is stable for 6 months when stored at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze.	
Specificity/Sensitivity	CD8 α (RPA-T8) Mouse mAb (PE-Cy7 [®] Conjugate) recognizes endogenous levels of total CD8 α protein. This antibody detects an epitope within the extracellular domain.	
Source / Purification	This monoclonal antibody was purified from tissue culture supernatant via affinity chromatography. The purified antibody was conjugated under optimal conditions, with unreacted dye removed from the preparation.	
Description	This Cell Signaling Technology antibody is conjugated to PE-Cy7 [®] and tested in-house for direct flow cytometry analysis in human cells.	
Background	Cluster of Differentiation 8 (CD8) is a disulphide-linked heterodimer consisting of the unrelated α and β subunits. Each subunit is a glycoprotein composed of a single extracellular Ig-like domain, a polypeptide linker, a transmembrane part and a short cytoplasmic tail. On T cells, CD8 is the coreceptor for the T cell receptor (TCR), and these two distinct structures recognize the Antigen-Major Histocompatibility Complex (MHC). Specifically, the Ig-like domain of CD8 α interacts with the α 3-domain of the MHC class I molecule. CD8 ensures specificity of the TCR-antigen interaction, prolongs the contact between the T cell and the antigen presenting cell, and the α chain recruits the tyrosine kinase Lck, which is essential for T cell activation (1). The RPA-T8 antibody is widely used as a phenotypic marker for CD8 on cytotoxic T cells and thymocytes (2,3), as well as on certain cell types that do not express the TCR, including some NK cells (4).	
Background References	<ol style="list-style-type: none"> Zamoyska, R. (1994) <i>Immunity</i> 1, 243-46. Friberg, H. et al. (2011) <i>Immunol Cell Biol</i> 89, 122-9. Reissfelder, C. et al. (2015) <i>J Clin Invest</i> 125, 739-51. Addison, E.G. et al. (2005) <i>Immunology</i> 116, 354-61. 	

Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
Applications Key	FC-FP: Flow Cytometry (Fixed/Permeabilized) FC-L: Flow Cytometry (Live)
Cross-Reactivity Key	H: Human
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