Revision 1

Store at +4C

#8829

CD8α (RPA-T8) Mouse mAb (PE Conjugate)

Cell Signaling TECHNOLOGY®

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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

Applications:	Reactivity:	Sensitivity:	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
FC-FP, FC-L	H	Endogenous	Mouse IgG1	#P01732	925

Product Usage Information

Application	Dilution
Flow Cytometry (Fixed/Permeabilized)	1:20
Flow Cytometry (Live)	1:20

Storage

Supplied in 10 mM NaH2PO4, 150 mM NaCl, 0.09% NaN3, 0.1% gelatin, pH 7.2. This product is stable for 12 months when stored at 4ºC. Do not aliquot the antibody. Protect from light. Do not freeze.

Specificity/Sensitivity

CD8α (RPA-T8) Mouse mAb (PE Conjugate) recognizes endogenous levels of total CD8α 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 phycoerythrin (PE) 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 CD8α interacts with the α3-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

1. Zamoyska, R. (1994) *Immunity* 1, 243-46.
2. Friberg, H. et al. (2011) *Immunol Cell Biol* 89, 122-9.
3. Reissfelder, C. et al. (2015) *J Clin Invest* 125, 739-51.
4. Addison, E.G. et al. (2005) *Immunology* 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

Trademarks and Patents

Limited Uses

any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.