abcam

ab25531

PE/Cy5® Anti-CD3 epsilon antibody [C363.29B]

Anti-CD3 epsilon antibody [C363.29B] conjugated to PE/Cy5® - suitable for flow cytometry, and reacts with mouse samples. Clone [C363.29B] is a rat monoclonal antibody cited in 6 publications.

Design your panel with our interactive flow cytometry panel builder. Click here.

Key facts

Isotype	IgG2c
Host species	Rat
Conjugation	PE/Cy5®
Excitation/Emission	Ex: 496nm, Em: 667nm
Storage buffer	pH: 7.1 Preservative: 0.09% Sodium azide Constituents: PBS, 16% Sucrose, 0.2% Gelatin
Form	Liquid
Clonality	Monoclonal
Clone number	C363.29B
Purity	IgG fraction
Epitope	This antibody recognises an epitope on the 25kDa epsilon chain of the CD3/TCR complex.
Light chain type	kappa
Concentration	0.1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Mouse
Dilution info	1 µg for 10^6 Cells
Notes	-

Target data

See full target information Cd3e

Function	Part of the TCR-CD3 complex present on T-lymphocyte cell surface that plays an essential role in adaptive immune response (PubMed:9843989, PubMed:10952314, PubMed:19956738, PubMed:24470497, PubMed:24899501, PubMed:40592325). When antigen presenting cells (APCs) activate T-cell receptor (TCR), TCR-mediated signals are transmitted across the cell membrane by the CD3 chains CD3D, CD3E, CD3G and CD247/CD3Z (PubMed:10952314, PubMed:19956738, PubMed:24899501, PubMed:40592325). All CD3 chains contain immunoreceptor tyrosine-based activation motifs (ITAMs) in their cytoplasmic domain (PubMed:10952314, PubMed:19956738, PubMed:24899501, PubMed:40592325). Upon TCR engagement, these motifs become phosphorylated by Src family protein tyrosine kinases LCK and FYN, resulting in the activation of downstream signaling pathways (PubMed:10952314, PubMed:19956738, PubMed:24899501, PubMed:40592325). CD3E ITAM phosphorylation creates docking sites for the protein kinase ZAP70 leading to ZAP70 phosphorylation and its conversion into a catalytically active enzyme (PubMed:10952314). In addition of this role of signal transduction in T-cell activation, CD3E plays an essential role in correct T-cell development (PubMed:10952314, PubMed:19956738, PubMed:24899501). Also participates in internalization and cell surface down-regulation of TCR-CD3 complexes via endocytosis sequences present in CD3E cytosolic region (By similarity). In addition to its role as a TCR coreceptor, it serves as a receptor for ITPRIPL1 (By similarity). Ligand recognition inhibits T-cell activation by promoting interaction with NCK1, which prevents CD3E-ZAP70 interaction and blocks the ERK-NFkB signaling cascade and calcium influx (By similarity).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Store in the dark

Notes

In the presence of Fc receptor-bearing accessory cells, this antibody can activate primed and naïve T cell in vitro. When immobilized it can also activate both normal T lymphocytes and cloned T cell lines provided the appropriate accessory signals are present. The antibody is cytolytic, is easily used for cell surface staining. This antibody has shown to be useful in studies of in vitro depletion of CD3+ cells, and in vitro activation of T cells (accessory cells must be provided).This product or portions thereof is manufactured under license from Carnegie Mellon University under U.S. Patent Number 5, 268, 486 and related patents. Cy® and CyDye® are trademarks of Cytiva.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

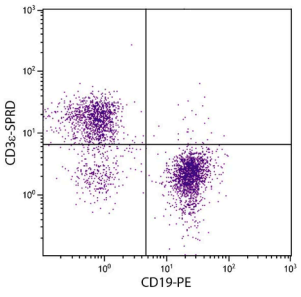
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

1 product image



Flow Cytometry - PE/Cy5® Anti-CD3 epsilon antibody [C363.29B] (ab25531)

CD3 epsilon Flow Cytometry staining using rat Anti-CD3 epsilon antibody

Flow Cytometry analysis of BALB/c mouse splenocytes stained with Anti-CD3 epsilon antibody [C363.29B] (PE/Cy5) ab25531 (1 µg/10^6cells) and Rat Anti-Mouse CD19-PE.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.