abcam

ab239226

FITC Anti-CD3 antibody [145-2C11]

Anti-CD3 antibody [145-2C11] conjugated to FITC - suitable for flow cytometry, and reacts with mouse samples. Clone [145-2C11] is a Armenian Hamster monoclonal antibody and one of the most commonly used clones for flow cytometry.

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

Key facts

Isotype	IgG
Host species	Hamster
Conjugation	FITC
Excitation/Emission	Ex: 495nm, Em: 519nm
Storage buffer	pH: 7.4 Preservative: 0.0975% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing Cd3e protein. The exact immunogen used to generate this antibody is proprietary information. Database link P22646
Clone number	145-2C11
Purification technique	Size-exclusion chromatography
Specificity	The Armenian hamster monoclonal antibody 145-2C11 reacts with an extracellular epitope of murine CD3 (epsilon subunit). This antibody is commonly used as a phenotypic marker for murine T cells.
Light chain type	kappa
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	The purified antibody is conjugated with Fluorescein isothiocyanate (FITC) under optimum conditions. The reagent is free of unconjugated FITC.

Reactivity data

Flow Cyt

Tested

Species	Mouse
Dilution info	1-3 µg/mL
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

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

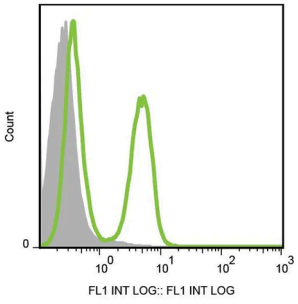
We do not recommend this combination. It is not covered by our product promise.

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.

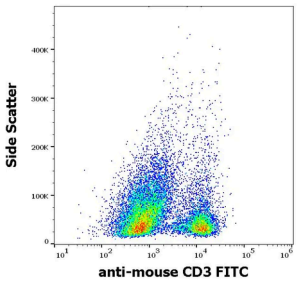
3 product images



Flow Cytometry - FITC Anti-CD3 antibody [145-2C11] (ab239226)

CD3 Flow Cytometry staining using hamster Anti-CD3 antibody

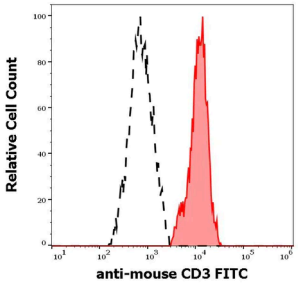
Flow Cytometry analysis of murine splenocytes labeling CD3 with ab239226 (green). Surface staining.



Flow Cytometry - FITC Anti-CD3 antibody [145-2C11] (ab239226)

CD3 Flow Cytometry staining using hamster Anti-CD3 antibody

Flow cytometry (surface staining) of murine splenocytes stained with 1µg/ml ab239226



Flow Cytometry - FITC Anti-CD3 antibody [145-2C11] (ab239226)

CD3 Flow Cytometry staining using hamster Anti-CD3 antibody

Flow cytometry surface staining analysis of murine splenocytes with CD3 positive cells stained with 1µg/ml ab239226 (red) and CD3 negative cells (black)

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