abcam

ab191112

Biotin Anti-CD3 antibody [UCHT1]

Anti-CD3 antibody [UCHT1] conjugated to Biotin - suitable for flow cytometry, intracellular flow cytometry, and reacts with human samples. Clone [UCHT1] is a mouse 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	IgG1
Host species	Mouse
Conjugation	Biotin
Storage buffer	pH: 7.4 Preservative: 0.0975% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing CD3D protein. The exact immunogen used to generate this antibody is proprietary information. Database link P04234
Clone number	UCHT1
Purification technique	Size-exclusion chromatography
Specificity	ab191112 recognizes the CD3 antigen of the TCR/CD3 complex on mature Human T cells. The antibody reacts with the epsilon chain of the CD3 complex.
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	ab191112 is free of unconjugated biotin.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1-12 µg/mL
Notes	-

Predicted

Species	Primates
Dilution info	-
Notes	-

Target data

See full target information CD3D

Function

Part of the TCR-CD3 complex present on T-lymphocyte cell surface that plays an essential role in adaptive immune response. 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. All CD3 chains contain immunoreceptor tyrosine-based activation motifs (ITAMs) in their cytoplasmic domain. 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:2470098). In addition of this role of signal transduction in T-cell activation, CD3D plays an essential role in thymocyte differentiation. Indeed, participates in correct intracellular TCR-CD3 complex assembly and surface expression. In absence of a functional TCR-CD3 complex, thymocytes are unable to differentiate properly. Interacts with CD4 and CD8 and thus serves to establish a functional link between the TCR and coreceptors CD4 and CD8, which is needed for activation and positive selection of CD4 or CD8 T-cells (PubMed:12215456).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C

Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle, 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

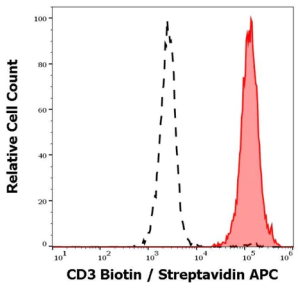
We do not recommend this combination. It is not covered by our product promise.

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.

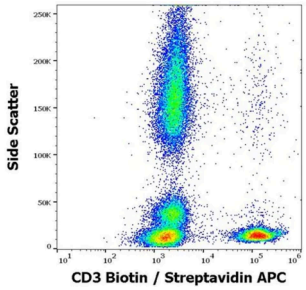
2 product images



Flow Cytometry - Biotin Anti-CD3 antibody [UCHT1] (ab191112)

CD3 Flow Cytometry staining using mouse Anti-CD3 antibody

Separation of human CD3 positive lymphocytes (red-filled) from neutrophil granulocytes (black-dashed) in flow cytometry analysis (surface staining) of human peripheral whole blood stained using ab191112 (concentration in sample 0.3 µg/mL) streptavidin APC.



Flow Cytometry - Biotin Anti-CD3 antibody [UCHT1] (ab191112)

CD3 Flow Cytometry staining using mouse Anti-CD3 antibody

Flow cytometry surface staining pattern of human peripheral whole blood stained using ab191112 (concentration in sample 0.3 µg/mL) streptavidin APC.

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