abcam

ab215267

Anti-CD3 antibody [UCH-T1] - BSA and Azide free

Lab Essentials

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	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
Carrier free	Yes
Clone number	UCH-T1
Purification technique	Affinity purification Protein A
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	3-4 µg/mL
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

Notes

Clone UCH-T1 is considered a pan T-cell marker - it can be used for the detection of T cell populations in peripheral blood and lymph nodes and the categorisation of T versus B cell lymphomas and leukaemias. It reacts with the majority of peripheral blood T lymphocytes, a major proportion of thymocytes, the majority of T cell chronic lymphocytic leukaemia cells, Sézary leukaemias and approximately 70% of acute lymphoblastic leukaemias of T cell origin.
ab215267 is a recombinant monoclonal antibody produced from the original monoclonal with variable regions (i.e. specificity) from the hybridoma.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

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

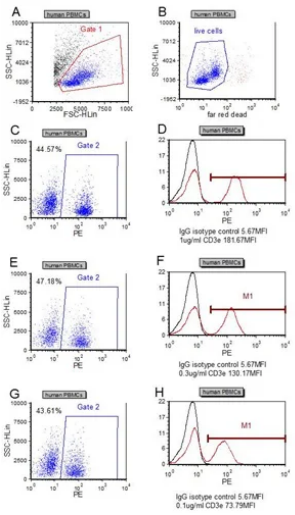
We do not recommend this combination. It is not covered by our product promise.

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.

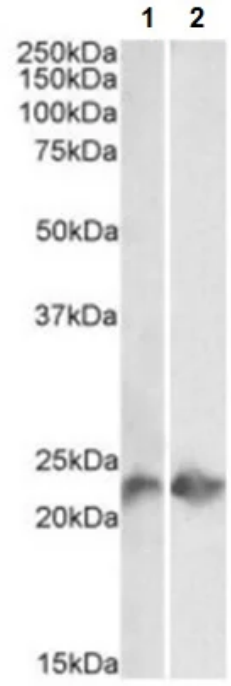
2 product images



Flow Cytometry - Anti-CD3 antibody [UCH-T1] - BSA and Azide free (ab215267)

CD3 Flow Cytometry staining using mouse Anti-CD3 antibody

Flow cytometric analysis of the dose-dependency (D, F, H) of ab215267 binding to live human PBMCs (B). The gating strategy is shown for control puposes (A, B, C, E, G).



Western blot - Anti-CD3 antibody [UCH-T1] - BSA and Azide free (ab215267)

CD3 Western blot staining using mouse Anti-CD3 antibody

Primary incubation was 1 hour.
All lanes:
Western blot - Anti-CD3 antibody [UCH-T1] - BSA and Azide free (ab215267) at 3 µg/mL

Lane 1:
Jurkat cell lysate (in RIPA buffer) at 35 µg

Lane 2:
Molt4 cell lysate (in RIPA buffer) at 35 µg

Predicted band size: 19 kDa

Observed band size: 23 kDa

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