

Datasheet: MCA463SBV515

BATCH NUMBER 100007973

Description:	MOUSE ANTI HUMAN CD3:StarBright Violet 515
Specificity:	CD3
Format:	StarBright Violet 515
Product Type:	Monoclonal Antibody
Clone:	UCHT1
Isotype:	IgG1
Quantity:	100 TESTS/0.5ml

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

Target Species	Human								
Species Cross Reactivity	Reacts with: Chimpanzee N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.								
Product Form	Purified IgG conjugated to StarBright Violet 515 - liquid								
Max Ex/Em	<table><tr><th>Fluorophore</th><th>Excitation Max (nm)</th><th>Emission Max (nm)</th></tr><tr><td>StarBright Violet 515</td><td>402</td><td>516</td></tr></table>	Fluorophore	Excitation Max (nm)	Emission Max (nm)	StarBright Violet 515	402	516		
Fluorophore	Excitation Max (nm)	Emission Max (nm)							
StarBright Violet 515	402	516							
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant								
Buffer Solution	Phosphate buffered saline								

Preservative	0.09% sodium azide (NaN ₃)
Stabilisers	1% bovine serum albumin 0.1% Pluronic F68 0.1% PEG 3350 0.05% Tween 20
Immunogen	Human infant thymocytes and lymphocytes from a patient with Sezary Syndrome.
External Database Links	UniProt: P07766 Related reagents Entrez Gene: 916 CD3E Related reagents
Synonyms	T3E
Fusion Partners	Spleen cells from immunized BALB/c mice were fused with cells of the P3/NS1/1-Ag4-1 mouse myeloma cell line.
Specificity	<p>Mouse anti Human CD3 antibody, clone UCHT1 recognizes the human T-cell surface glycoprotein CD3 epsilon chain, also known as T-cell surface antigen T3/Leu-4 epsilon chain or CD3ε. CD3ε is a 207 amino acid, ~21kDa single pass type 1 transmembrane protein containing a single Ig-like and a single ITAM domain. Mouse anti Human CD3 antibody, clone UCHT1 was originally described as only binding to CD3ε when complexed with either the CD3δ or CD3γ subunits, as indicated by co-transfection immunofluorescence on COS cells (Salmerón et al. 1991). Mouse anti Human CD3 antibody, clone UCHT1 binds to a region in the ectodomain of human CD3ε and binds to a discontinuous epitope near an acidic region of CD3ε opposite the dimer interface; as shown by crystallography of the CD3ε/δ dimer complexed with a single chain UCHT1 antibody fragment (Arnett et al. 2004).</p> <p>CD3 is expressed by all T lymphocytes and is seen in all lymphoid organs including lymph nodes and spleen. It is involved in thymocyte differentiation (Brodeur et al. 2009). Deficiency of the CD3ε chain contributes to blocking T-cell development and presentation of a severe combined immunodeficiency phenotype (Fischer et al. 2005).</p> <p>Mouse anti Human CD3 antibody, clone UCHT1 has been used successfully for the activation of human peripheral blood lymphocytes by cross linking and subsequently for CD3ε surface expression by flow cytometry (Hirsh and Cohen 2006).</p>
Flow Cytometry	Use 5µl of the suggested working dilution to label 10 ⁶ cells in 100µl. Best practices suggest a 5 minutes centrifugation at 6,000g prior to sample application.
References	<ol style="list-style-type: none"> 1. Beverley, P.C. & Callard, R.E. (1981) Distinctive functional characteristics of human "T" lymphocytes defined by E rosetting or a monoclonal anti-T cell antibody. Eur J Immunol. 11 (4): 329-34. 2. Clevers, H. et al. (1988) The transmembrane orientation of the epsilon chain of the

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Further Reading

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Storage

Store at +4°C. DO NOT FREEZE.
This product should be stored undiluted.

Guarantee

12 months from date of despatch

Acknowledgements

This product is covered by U.S. Patent No. 10,150,841 and related U.S. and foreign counterparts

Health And Safety Information

Material Safety Datasheet documentation #20471 available at:
<https://www.bio-rad-antibodies.com/SDS/MCA463SBV515>
20471

Regulatory

For research purposes only

Related Products

Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

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