



Datasheet: MCA463A700

BATCH NUMBER 1014

| | |
|----------------------|---------------------------------------|
| Description: | MOUSE ANTI HUMAN CD3:Alexa Fluor® 700 |
| Specificity: | CD3 |
| Format: | ALEXA FLUOR® 700 |
| Product Type: | Monoclonal Antibody |
| Clone: | UCHT1 |
| Isotype: | IgG1 |
| Quantity: | 100 TESTS/1ml |

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 - 1/5 |

Where this antibody 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 antibody 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 Alexa Fluor® 700 - liquid

Max Ex/Em

| Fluorophore | Excitation Max (nm) | Emission Max (nm) |
|-----------------|---------------------|-------------------|
| Alexa Fluor®700 | 702 | 723 |

Preparation

Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant

Buffer Solution

Phosphate buffered saline

| | |
|---------------------------------------|--|
| Preservative | 0.09% Sodium Azide |
| Stabilisers | 1% Bovine Serum Albumin |
| Approx. Protein Concentrations | IgG concentration 0.05 mg/ml |
| Immunogen | Human infant thymocytes and lymphocytes from a patient with Sezary Syndrome. |
| External Database Links | <p>UniProt: P07766 Related reagents</p> <p>Entrez Gene: 916 CD3E Related reagents</p> |
| Synonyms | T3E |
| RRID | AB_844490 |
| Fusion Partners | Spleen cells from immunised 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 studies 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 has been shown to bind to a discontinuous epitope near an acidic region of CD3ε opposite the dimer interface; as shown by crystallographic studies 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 10ul of the suggested working dilution to label 10 ⁶ cells or 100ul whole blood. |
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Further Reading

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Storage

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost free freezers is not recommended. This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing as this may denature the antibody. Should this

product contain a precipitate we recommend microcentrifugation before use.

Guarantee 12 months from date of despatch

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Health And Safety Information Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA463A700>
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Regulatory For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:Alexa Fluor® 700 \(MCA928A700\)](#)

Recommended Useful Reagents

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

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

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