**Product Details**

**Application**

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](http://www.bio-rad-antibodies.com/protocols).

<table>
<thead>
<tr>
<th>Application</th>
<th>Yes</th>
<th>No</th>
<th>Not Determined</th>
<th>Suggested Dilution</th>
</tr>
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<tbody>
<tr>
<td>Flow Cytometry (1)</td>
<td></td>
<td></td>
<td></td>
<td>Neat</td>
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</table>

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.

(1) **Membrane permeabilization is required for this application. Bio-Rad recommends the use of Leucoperm (BUF09) for this purpose.**

**Target Species**

Human

**Species Cross Reactivity**

Reacts with: Bovine, Dog, Horse, Rhesus Monkey, Pig, Chicken, Mouse, Duck, Koala, Harbour Porpoise, Alpaca, Cynomolgus monkey, Spotted Hyena, Sea Lion, Cat, Amazon Parrot, Raccoon, Great horned owl (Bubo virginianus), Bullfrog, Xenopus, Rabbit

Based on sequence similarity, is expected to react with: Mammals, Birds, Amphibia

**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®647 - liquid

**Max Ex/Em**

<table>
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<tr>
<th>Fluorophore</th>
<th>Excitation Max (nm)</th>
<th>Emission Max (nm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alexa Fluor®647</td>
<td>650</td>
<td>665</td>
</tr>
</tbody>
</table>
**Preparation**  Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant

**Buffer Solution**  Phosphate buffered saline

**Preservative Stabilisers**  0.09% Sodium Azide (NaN₃)  
1% Bovine Serum Albumin

**Approx. Protein Concentrations**  IgG concentration 0.05mg/ml

**Immunogen**  Synthetic peptide sequence derived from cytoplasmic epitope of CD3 (Glu-Arg-Pro-Pro-Pro-Val-Pro-Asn-Pro-Asp-Tyr-Glu-Pro-Cys) (ERPPPVPNPDYEPC )

**External Database Links**  UniProt: [P07766](https://www.uniprot.org/uniprot/P07766)  
Related reagents

**Entrez Gene**  [916](https://www.ncbi.nlm.nih.gov/gene/916)  CD3E  
Related reagents

**Synonyms**  T3E

**RRID**  AB_10841760

**Specificity**  Rat anti Human CD3, clone CD3-12 raised against a peptide representing an invariant cytoplasmic sequence within the CD3ε chain recognizes human CD3ε. CD3 is a multimeric protein complex composed of four distinct polypeptide chains (ε, γ, δ, ζ) that assemble and function as three pairs of dimers (εγ, εδ, ζζ). The CD3 complex serves as a T cell co-receptor that associates non-covalently with the T cell receptor (TCR) ([Malissen 2008](https); [Guy and Vignali 2009](https); [Smith-Garvin et al. 2009](https)). CD3 is a defining feature of cells belonging to the T cell lineage and can therefore be used as T cell marker.

As Rat anti Human CD3, clone CD3-12 has been specifically raised against an epitope within the epsilon peptide chain, highly conserved among species clone CD3-12 has a very broad species crossreactivity for the CD3 marker. ([Jones et al. 1993](https); [Kothlow et al. 2005](https)).

**References**


**Further Reading**


**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

**Acknowledgements**

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product solely in research, excluding contract research or any fee for service research, and the buyer must not sell or otherwise transfer this product or its components for (a) diagnostic, therapeutic or prophylactic purposes; (b) testing, analysis or screening services, or information in return for compensation on a per-test basis; (c) manufacturing or quality assurance or quality control, or (d) resale, whether or not resold for use in research. For information on purchasing a license to this product for purposes other than as described above, contact Life Technologies Corporation, 5791 Van Allen Way, Carlsbad CA 92008 USA or outlicensing@thermofisher.com

Health And Safety Information

Material Safety Datasheet documentation #10041 available at:

Regulatory

For research purposes only

Related Products

Recommended Negative Controls

RAT IgG1 NEGATIVE CONTROL: Alexa Fluor® 647 (MCA6004A647)

Recommended Useful Reagents

HUMAN SEROBLOCK (BUF070A)
HUMAN SEROBLOCK (BUF070B)

From March 15, 2021, we will no longer supply printed datasheets with our products. Look out for updates on how to access your digital version at bio-rad-antibodies.com

Printed on 02 Mar 2021

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