

Datasheet: MCA1477A488

Description:	RAT ANTI HUMAN CD3:Alexa Fluor®488
Specificity:	CD3
Format:	ALEXA FLUOR® 488
Product Type:	Monoclonal Antibody
Clone:	CD3-12
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 (1)	▪			1/5 - 1/10

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 (<i>Bubo virginianus</i>), 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 488 - liquid								
Max Ex/Em	<table border="1"> <thead> <tr> <th>Fluorophore</th> <th>Excitation Max (nm)</th> <th>Emission Max (nm)</th> </tr> </thead> <tbody> <tr> <td>Alexa Fluor®488</td> <td>495</td> <td>519</td> </tr> </tbody> </table>	Fluorophore	Excitation Max (nm)	Emission Max (nm)	Alexa Fluor®488	495	519		
Fluorophore	Excitation Max (nm)	Emission Max (nm)							
Alexa Fluor®488	495	519							
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture								

supernatant

Buffer Solution Phosphate buffered saline

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

Approx. Protein Concentrations IgG concentration 0.05 mg/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](#) [Related reagents](#)

Entrez Gene:

[916](#) CD3E [Related reagents](#)

Synonyms T3E

RRID AB_10844215

Specificity **Rat anti Human CD3, clone CD3-12** raised against a peptide representing an invariant cytoplasmic sequence within the CD3 ϵ chain recognizes human CD3 ϵ . 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 ($\epsilon\gamma$, $\epsilon\delta$, $\zeta\zeta$). The CD3 complex serves as a T cell co-receptor that associates non-covalently with the T cell receptor (TCR) ([Malissen 2008](#); [Guy and Vignali 2009](#); [Smith-Garvin et al. 2009](#)). 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](#); [Kothlow et al. 2005](#)).

References

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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

Acknowledgements

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Material Safety Datasheet documentation #10041 available at:
10041: <https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf>

Regulatory

For research purposes only

Related Products**Recommended Negative Controls**

[RAT IgG1 NEGATIVE CONTROL:Alexa Fluor® 488 \(MCA6004A488\)](#)

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

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'M365355:200529'

Printed on 19 Oct 2020

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