

Datasheet: MCA1477PB

Description:	RAT ANTI HUMAN CD3:Pacific Blue®
Specificity:	CD3
Format:	Pacific Blue®
Product Type:	Monoclonal Antibody
Clone:	CD3-12
Isotype:	IgG1
Quantity:	100 TESTS/1ml

Product Details

RRID AB_10843429

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 (*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.

Product Form

Purified IgG conjugated to Pacific Blue - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
Pacific Blue®	410	455

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 0.05 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) (ERPPPVPNPDIYEP C)
External Database Links	<p>UniProt: P07766 Related reagents</p> <p>Entrez Gene: 916 CD3E Related reagents</p>
Synonyms	T3E
Specificity	<p>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; 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.</p> <p>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).</p>
References	<ol style="list-style-type: none"> Jones, M. <i>et al.</i> (1993) Detection of T and B cells in many animal species using cross-reactive anti-peptide antibodies. J Immunol. 150 (12): 5429-35. Shulga-Morskaya, S. <i>et al.</i> (2004) B cell-activating factor belonging to the TNF family acts through separate receptors to support B cell survival and T cell-independent antibody formation. J Immunol. 173 (4): 2331-41. Kapturczak, M.H. <i>et al.</i> (2004) Heme oxygenase-1 modulates early inflammatory responses: evidence from the heme oxygenase-1-deficient mouse. Am J Pathol. 165 (3): 1045-53. Kothlow, S. <i>et al.</i> (2005) Characterization of duck leucocytes by monoclonal antibodies. Dev Comp Immunol. 29 (8): 733-48. Patole, P.S. <i>et al.</i> (2006) Expression and regulation of Toll-like receptors in lupus-like immune complex glomerulonephritis of MRL-Fas(lpr) mice. Nephrol Dial Transplant 21 (11): 3062-73. Foryst-Ludwig, A. <i>et al.</i> (2010) PPARγ activation attenuates T-lymphocyte-dependent inflammation of adipose tissue and development of insulin resistance in obese mice. Cardiovasc Diabetol. 9: 64. Osorio, Y. <i>et al.</i> (2011) Identification of small molecule lead compounds for visceral leishmaniasis using a novel <i>ex vivo</i> splenic explant model system. PLoS Negl Trop Dis. 5:e962. Flatz, L. <i>et al.</i> (2011) T cell-dependence of Lassa fever pathogenesis. PLoS Pathog. 6: e1000836. Gendronneau, G. <i>et al.</i> (2010) Influence of Hoxa5 on p53 tumorigenic outcome in mice. Am J Pathol. 176: 995-1005. Herrmann, I. <i>et al.</i> (2006) <i>Streptococcus pneumoniae</i> Infection aggravates experimental autoimmune encephalomyelitis via Toll-like receptor 2. Infect Immun. 74: 4841-8. Ruf, M.T. <i>et al.</i> (2012) Chemotherapy-Associated Changes of Histopathological Features of <i>Mycobacterium ulcerans</i> Lesions in a Buruli Ulcer Mouse Model. Antimicrob Agents Chemother. 56: 687-96. Roy, M. <i>et al.</i> (2012) CXCL1 can be regulated by IL-6 and promotes granulocyte adhesion to

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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

18 months from date of despatch.

Acknowledgements

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Health And Safety

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

Information

Regulatory For research purposes only

Related Products

Recommended Negative Controls

[RAT IgG1 NEGATIVE CONTROL:Pacific Blue® \(MCA6004PB\)](#)

Recommended Useful Reagents

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

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

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