

Datasheet: MCA1477

BATCH NUMBER 162316

| | |
|----------------------|---------------------|
| Description: | RAT ANTI HUMAN CD3 |
| Specificity: | CD3 |
| Format: | Purified |
| Product Type: | Monoclonal Antibody |
| Clone: | CD3-12 |
| Isotype: | IgG1 |
| Quantity: | 0.2 mg |

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) | ▪ | | | 1/50 - 1/100 |
| Immunohistology - Frozen | ▪ | | | 1/100 |
| Immunohistology - Paraffin (2) | ▪ | | | 1/100 |
| ELISA | | | ▪ | |
| Immunoprecipitation | | | ▪ | |
| Western Blotting | ▪ | | | |
| Immunofluorescence | ▪ | | | |

The PrecisionAb label is reserved for antibodies that meet the defined performance criteria within Bio-Rad's ongoing antibody validation programme. Click [here](#) to learn how we validate our PrecisionAb range. Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. It is recommended that the user titrates the antibody 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.

(2)This product requires antigen retrieval using heat treatment prior to staining of paraffin sections. Tris/EDTA buffer pH 9.0 is recommended 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, African green monkey

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 - liquid |
| 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 |
| Carrier Free | Yes |
| Approx. Protein Concentrations | IgG concentration 1.0 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_321245 |
| Specificity | <p>Rat anti Human CD3 antibody, 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 ($\epsilon\gamma$, $\epsilon\delta$, $\zeta\zeta$). 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.</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.</p> |

[2005](#)).

**Histology Positive
Control Tissue**

Tonsil

References

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Further Reading

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Storage

This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

Guarantee 12 months from date of despatch

Acknowledgements PrecisionAb is a trademark of Bio-Rad Laboratories

Health And Safety Information Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1477>
10040

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

| | |
|--|---|
| Rabbit Anti Rat IgG (STAR16...) | DyLight@800 |
| Rabbit Anti Rat IgG (STAR17...) | FITC |
| Goat Anti Rat IgG (STAR72...) | HRP |
| Goat Anti Rat IgG (STAR69...) | FITC |
| Goat Anti Rat IgG (STAR73...) | RPE |
| Rabbit Anti Rat IgG (STAR21...) | HRP |
| Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...) | DyLight@550 , DyLight@650 , DyLight@800 |
| Goat Anti Rat IgG (STAR131...) | Alk. Phos. , Biotin |

Recommended Negative Controls

[RAT IgG1 NEGATIVE CONTROL \(MCA6004GA\)](#)

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