Datasheet: MCA1477F

**Description:** RAT ANTI HUMAN CD3:FITC

**Specificity:** CD3

**Format:** FITC

**Product Type:** Monoclonal Antibody

**Clone:** CD3-12

**Isotype:** IgG1

**Quantity:** 0.1 mg

**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

**N.B.** Antibody reactivity and working conditions may vary between species.

<table>
<thead>
<tr>
<th>Applications</th>
<th>Yes</th>
<th>No</th>
<th>Not Determined</th>
<th>Suggested Dilution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow Cytometry (1)</td>
<td>-</td>
<td></td>
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<td>1/5 - 1/10</td>
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</table>

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 systems with appropriate negative/positive controls.

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

**Product Form**
- Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid

**Max Ex/Em**
- **Fluorophore:** FITC
- **Excitation Max (nm):** 490
- **Emission Max (nm):** 525

**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
- 1% Bovine Serum Albumin

**Approx. Protein Concentrations**
- IgG concentration 0.1 mg/ml
Immunogen
Synthetic peptide sequence derived from cytoplasmic epitope of CD3 (Glu-Arg-Pro-Pro-Val-Pro-Asn-Pro-Asp-Tyr-Glu-Pro-Cys) (ERPPPVPNPDYEPC)

External Database Links
UniProt: P07766
Entrez Gene: 916 CD3E

Synonyms
T3E

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 (cy, 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.

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
26. Dewals B.G., et al. (2011) Malignant catarrhal fever induced by Alcelaphine herpesvirus 1 is characterized by an expansion of activated CD3+CD8+CD4- T cells expressing a cytotoxic phenotype in both lymphoid and non-lymphoid tissues Vet Res. 42:95.

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.

Shelf Life

18 months from date of despatch.

Health And Safety Information


Regulatory

For research purposes only

Related Products

Recommended Negative Controls

RAT IgG1 NEGATIVE CONTROL:FITC (MCA6004F)

Recommended Useful Reagents

HUMAN SEROBLOCK (BUF070A)
HUMAN SEROBLOCK (BUF070B)