

## Datasheet: MCA1413F

<b>Description:</b>	HAMSTER ANTI MOUSE TCR ALPHA/BETA BETA CHAIN:FITC
<b>Specificity:</b>	TCR ALPHA/BETA BETA CHAIN
<b>Format:</b>	FITC
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	H57-597
<b>Isotype:</b>	IgG
<b>Quantity:</b>	0.1 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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			1/5 - 1/10

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 their own system using appropriate negative/positive controls.

<b>Target Species</b>	Mouse						
<b>Product Form</b>	Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid						
<b>Max Ex/Em</b>	<table border="1"> <thead> <tr> <th>Fluorophore</th> <th>Excitation Max (nm)</th> <th>Emission Max (nm)</th> </tr> </thead> <tbody> <tr> <td>FITC</td> <td>490</td> <td>525</td> </tr> </tbody> </table>	Fluorophore	Excitation Max (nm)	Emission Max (nm)	FITC	490	525
Fluorophore	Excitation Max (nm)	Emission Max (nm)					
FITC	490	525					
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant						
<b>Buffer Solution</b>	Phosphate buffered saline						
<b>Preservative</b>	0.09% Sodium Azide						
<b>Stabilisers</b>	1% Bovine Serum Albumin						
<b>Approx. Protein Concentrations</b>	IgG concentration 0.1 mg/ml						
<b>Immunogen</b>	Affinity purified murine T cell receptor.						
<b>Fusion Partners</b>	Spleen cells from immunised Armenian hamsters were fused with cells of the mouse P3X63Ag.653 myeloma cell line.						
<b>Specificity</b>	<b>Hamster anti mouse TCR <math>\alpha/\beta</math>, clone H57-597</b> , recognises the $\beta$ -chain of the murine $\alpha/\beta$ T cell receptor and does not show any reactivity to TCR $\gamma/\delta$ ( <a href="#">Gascoigne, N., 1990</a> ).						

Clone H57-597 has been reported to activate T-cells in immobilised form ([Kubo, R. et al., 1989](#)) and has also been used for *in vivo* cell depletion ([van der Heyde, H. et al., 1995](#) and [Skeen, M. & Ziegler, H., 1993](#)). Removal of sodium azide is recommended prior to using this clone in functional assays. Bio-Rad recommend the [Slide-A-Lyzer® Dialysis Cassette](#) for this purpose.

---

**Flow Cytometry** Use 10ul of the suggested working dilution to label 10<sup>6</sup> cells in 100ul.

The Fc region of monoclonal antibodies may bind non-specifically to cells expressing low affinity fc receptors. This may be reduced by using SeroBlock FcR ([BUF041A/B](#)).

- 
- References**
1. Kubo, R.T. *et al.* (1989) Characterization of a monoclonal antibody which detects all murine alpha beta T cell receptors. [J Immunol. 142 \(8\): 2736-42.](#)
  2. Goodman, T. & Lefrancois, L. (1989) Intraepithelial lymphocytes. Anatomical site, not T cell receptor form, dictates phenotype and function. [J Exp Med. 170 \(5\): 1569-81.](#)
  3. Gascoigne, N.R. (1990) Transport and secretion of truncated T cell receptor beta-chain occurs in the absence of association with CD3. [J Biol Chem. 265 \(16\): 9296-301.](#)
  4. van der Heyde, H.C. *et al.* (1995) Gamma delta T cells function in cell-mediated immunity to acute blood-stage Plasmodium chabaudi adami malaria. [J Immunol. 154 \(8\): 3985-90.](#)
  5. Skeen, M.J. & Ziegler, H.K. (1993) Induction of murine peritoneal gamma/delta T cells and their role in resistance to bacterial infection. [J Exp Med. 178 \(3\): 971-84.](#)
  6. Nilsson, I.A. *et al.* (2011) Evidence of hypothalamic degeneration in the anorectic anx/anx mouse. [Glia. 59 \(1\): 45-57.](#)
  7. Lenzen, H. *et al.* (2012) Downregulation of the NHE3-binding PDZ-adaptor protein PDZK1 expression during cytokine-induced inflammation in interleukin-10-deficient mice. [PLoS One. 7 \(7\): e40657.](#)

---

**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** 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

[HAMSTER \(ARMENIAN\) IgG NEGATIVE CONTROL:FITC \(MCA2356F\)](#)

**North & South** Tel: +1 800 265 7376

**America** Fax: +1 919 878 3751

Email: [antibody\\_sales\\_us@bio-rad.com](mailto:antibody_sales_us@bio-rad.com)

**Worldwide**

Tel: +44 (0)1865 852 700

Fax: +44 (0)1865 852 739

Email: [antibody\\_sales\\_uk@bio-rad.com](mailto:antibody_sales_uk@bio-rad.com)

**Europe**

Tel: +49 (0) 89 8090 95 21

Fax: +49 (0) 89 8090 95 50

Email: [antibody\\_sales\\_de@bio-rad.com](mailto:antibody_sales_de@bio-rad.com)

**Printed on 05 May 2018**

---

© 2018 Bio-Rad Laboratories Inc | [Legal](#) | [Imprint](#)