

## Datasheet: MCA1558F

|                      |                                    |
|----------------------|------------------------------------|
| <b>Description:</b>  | MOUSE ANTI PCNA:FITC               |
| <b>Specificity:</b>  | PCNA                               |
| <b>Other names:</b>  | PROLIFERATING CELL NUCLEAR ANTIGEN |
| <b>Format:</b>       | FITC                               |
| <b>Product Type:</b> | Monoclonal Antibody                |
| <b>Clone:</b>        | PC10                               |
| <b>Isotype:</b>      | IgG2a                              |
| <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) | ▪   |    |                | Neat - 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. The use of Leucoperm (Product Code [BUF09](#)) is recommended for this purpose.**

#### Target Species

Rat

#### Species Cross Reactivity

Reacts with: Ferret, Chicken, Rabbit, Xenopus, Mouse, Horse, Sheep, Dog, Cat, Cynomolgus monkey, Rhesus Monkey, Hamster, Atlantic Salmon, Human, Bearded Dragon, Corn Snake, Nile Crocodile

Based on sequence similarity, is expected to react with: Vertebrates, Invertebrates

**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 Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid

| Max Ex/Em | 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 (NaN <sub>3</sub> )  |
| <b>Stabilisers</b>                    | 1% bovine serum albumin   |
| <b>Approx. Protein Concentrations</b> | IgG concentration 0.1 mg/ml   |
| <b>Immunogen</b>                      | Rat PCNA made in the protein A expression vector pR1T2T   |
| <b>External Database Links</b>        | <p><b>UniProt:</b><br/> <a href="#">P04961</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b><br/> <a href="#">25737</a> Pcna    <a href="#">Related reagents</a></p>   |
| <b>RRID</b>                           | AB_324957   |
| <b>Specificity</b>                    | <p><b>Mouse anti PCNA antibody, clone PC10</b> recognizes the proliferating cell nuclear antigen, also known as PCNA or cyclin. PCNA is a 261 amino acid ~28 kDa nuclear protein vital for cellular DNA synthesis at the replication fork (<a href="#">Li et al. 1995</a>) through its interaction with <a href="#">FEN1</a> (<a href="#">Wu et al. 1996</a>). PCNA is the auxilliary protein for DNA polymerase <math>\delta</math> (<a href="#">Bravo et al. 1987</a>).</p> <p>PCNA is highly conserved between mammalian species and other vertebrates. Mouse anti PCNA antibody, clone PC10 has been used for the detection of PCNA in a number of species including human, rat, mouse (<a href="#">Park et al. 2008</a>), chicken (<a href="#">Franz-Odendaal 2008</a>) and abalone (<a href="#">Harris et al. 2006</a>).</p>  |
| <b>Flow Cytometry</b>                 | Use 10 $\mu$ l of the suggested working dilution to label 1x10 <sup>6</sup> cells in 100 $\mu$ l  |
| <b>References</b>                     | <ol style="list-style-type: none"> <li>1. Waseem, N.H. &amp; Lane, D.P. (1990) Monoclonal antibody analysis of the proliferating cell nuclear antigen (PCNA). Structural conservation and the detection of a nucleolar form. <a href="#">J Cell Sci. 96 ( Pt 1): 121-9.</a></li> <li>2. Landberg, G. et al. (1990) Flow cytometric multiparameter analysis of proliferating cell nuclear antigen/cyclin and Ki-67 antigen: a new view of the cell cycle. <a href="#">Exp Cell Res. 187 (1): 111-8.</a></li> <li>3. Wilson, G.D. et al. (1992) Flow cytometric characterisation of proliferating cell nuclear antigen using the monoclonal antibody PC10. <a href="#">Eur J Cancer. 28A (12): 2010-7.</a></li> <li>4. Jenkins, H. et al. (1993) Nuclei that lack a lamina accumulate karyophilic proteins and assemble a nuclear matrix. <a href="#">J Cell Sci. 106: 275-85.</a></li> <li>5. Prosperi, E. et al. (1993) Proliferating cell nuclear antigen complex formation induced by ultraviolet irradiation in human quiescent fibroblasts as detected by immunostaining and flow cytometry. <a href="#">Exp Cell Res. 205 (2): 320-5.</a></li> </ol> |

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17. Di-poï, N. & Milinkovitch, M.C. (2016) The anatomical placode in reptile scale morphogenesis indicates shared ancestry among skin appendages in amniotes. [Sci Adv. 2 \(6\): e1600708.](#)
18. Nakatsuka, M. & Kumabe, S (2018) Histological Alterations from Condyle Repositioning with Functional Appliances in Rats. [J Clin Pediatr Dent. 42 \(5\): 391-7.](#)
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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. This product is photosensitive and should be protected from light.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1558F>

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**Regulatory**

For research purposes only

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## Related Products

### Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL:FITC \(MCA1210F\)](#)

**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)

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://bio-rad-antibodies.com/datasheets)

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