

Datasheet: MCA1558F

Description:	MOUSE ANTI PCNA:FITC
Specificity:	PCNA
Other names:	PROLIFERATING CELL NUCLEAR ANTIGEN
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	PC10
Isotype:	IgG2a
Quantity:	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.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry (1)	■			Neat - 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 in their own system using appropriate negative/positive controls.

(1) **Membrane permeabilisation is required for this application. Bio-Rad recommends the use of Leucoperm™ (Product Code [BUF09](#)) 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 Based on sequence similarity, is expected to react with: Vertebrates, Invertebrates N.B. Antibody reactivity and working conditions may vary between species.								
Product Form	Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid								
Max Ex/Em	<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							
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant								
Buffer Solution	Phosphate buffered saline								
Preservative	0.09% Sodium Azide								
Stabilisers	1% Bovine Serum Albumin								
Approx. Protein Concentrations	IgG concentration 0.1 mg/ml								

Immunogen	Rat PCNA made in the protein A expression vector pR1T2T
External Database Links	<p>UniProt: P04961 Related reagents</p> <p>Entrez Gene: 25737 Pcna Related reagents</p>
Specificity	<p>Mouse anti PCNA antibody, clone PC10 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 (Li et al. 1995) through its interaction with FEN1 (Wu et al. 1996). PCNA is the auxilliary protein for DNA polymerase δ (Bravo et al. 1987).</p> <p>PCNA is highly conserved between mammalian species and other vertebrates. Clone PC10 has been used for the detection of PCNA in a number of species including human, rat, mouse (Park et al. 2008), chicken (Franz-Odendaal 2008) and abalone (Harris et al. 2006).</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 1×10^6 cells in 100ul.
References	<ol style="list-style-type: none"> Mathews, M.B. <i>et al.</i> (1984) Identity of the proliferating cell nuclear antigen and cyclin. Nature. 309 (5966): 374-6. Ogata, K. <i>et al.</i> (1985) Purification and N-terminal amino acid sequence of proliferating cell nuclear antigen (PCNA)/cyclin and development of ELISA for anti-PCNA antibodies. J Immunol. 135 (4): 2623-7. Garcia, R.L. <i>et al.</i> (1989) Analysis of proliferative grade using anti-PCNA/cyclin monoclonal antibodies in fixed, embedded tissues. Comparison with flow cytometric analysis. Am J Pathol. 134 (4): 733-9. Landberg, G. <i>et al.</i> (1990) Flow cytometric multiparameter analysis of proliferating cell nuclear antigen/cyclin and Ki-67 antigen: a new view of the cell cycle. Exp Cell Res. 187 (1): 111-8. Wilson, G.D. <i>et al.</i> (1992) Flow cytometric characterisation of proliferating cell nuclear antigen using the monoclonal antibody PC10. Eur J Cancer. 28A (12): 2010-7. Prosperi, E. <i>et al.</i> (1993) Proliferating cell nuclear antigen complex formation induced by ultraviolet irradiation in human quiescent fibroblasts as detected by immunostaining and flow cytometry. Exp Cell Res. 205 (2): 320-5. Elsässer, H.P. <i>et al.</i> (1994) Growth of rat pancreatic acinar cells quantitated with a monoclonal antibody against the proliferating cell nuclear antigen. Cell Tissue Res. 276 (3): 603-9. Harris, L. <i>et al.</i> (2006) Characterisation of cell types in abalone (<i>Haliotis</i> spp.) tissues using immunohistochemical techniques Aquaculture 261: 1413-21 Buggins, A.G. <i>et al.</i> (2001) Microenvironment produced by acute myeloid leukemia cells prevents T cell activation and proliferation by inhibition of NF-kappaB, c-Myc, and pRb pathways. J Immunol. 167: 6021-30. Kapitonova, M.Y. <i>et al.</i> (2010) Immunohistochemical characteristics of the hypophysis in normal conditions and chronic stress. Neurosci Behav Physiol. 40: 97-102. Franz-Odendaal, T.A. (2008) Toward understanding the development of scleral ossicles in the chicken, <i>Gallus gallus</i>. Dev Dyn. 237: 3240-51. Hashimoto, Y. <i>et al.</i> (2010) Rad51 protects nascent DNA from Mre11-dependent degradation and promotes continuous DNA synthesis. Nat Struct Mol Biol. 17: 1305-11. Jenkins, H. <i>et al.</i> (1993) Nuclei that lack a lamina accumulate karyophilic proteins and assemble a nuclear matrix. J Cell Sci. 106: 275-85. Park, J.H. <i>et al.</i> (2008) Gastric lesions and immune responses caused by long-term infection with <i>Helicobacter heilmannii</i> in C57BL/6 mice. J Comp Pathol. 139: 208-17.

15. Izhak, L. *et al.* (2012) Dissecting the autocrine and paracrine roles of the CCR2-CCL2 axis in tumor survival and angiogenesis. [PLoS One. 7: e28305.](#)
16. Fenton, M. *et al.* (2001) Cellular senescence after single and repeated balloon catheter denudations of rabbit carotid arteries. [Arterioscler Thromb Vasc Biol. 21: 220-6.](#)
17. Guzera, M. *et al.* (2016) *In Vitro* Influence of Mycophenolic Acid on Selected Parameters of Stimulated Peripheral Canine Lymphocytes. [PLoS One. 11 \(5\): e0154429.](#)
18. Khlebnikov, V. V. *et al.* (2015) Developmental Characteristics of the Hypothalamo-Hypophyseal-Adrenal System in Chronic Heterotypical Stress [Neuroscience and Behavioral Physiology. 46 \(1\): 100-5.](#)

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

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

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