

Datasheet: MCA1558P

Description:	MOUSE ANTI PCNA:HRP
Specificity:	PCNA
Other names:	PROLIFERATING CELL NUCLEAR ANTIGEN
Format:	HRP
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
Immunohistology - Frozen			■	
Immunohistology - Paraffin			■	
ELISA			■	
Western Blotting	■			1/1000

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.

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 Horseradish Peroxidase (HRP) - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.01% Thiomersal HRP Stabiliser (BUF052A)
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Rat PCNA made in the protein A expression vector pR1T2T

External Database**Links****UniProt:**[P04961](#)[Related reagents](#)**Entrez Gene:**[25737](#)

Pcna

[Related reagents](#)

Specificity

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 auxiliary protein for DNA polymerase δ ([Bravo et al. 1987](#)).

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-Odenaal 2008](#)) and abalone ([Harris et al. 2006](#)).

References

1. Mathews, M.B. *et al.* (1984) Identity of the proliferating cell nuclear antigen and cyclin. [Nature. 309 \(5966\): 374-6.](#)
2. Ogata, K. *et al.* (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.](#)
3. Garcia, R.L. *et al.* (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.](#)
4. 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. [Exp Cell Res. 187 \(1\): 111-8.](#)
5. Wilson, G.D. *et al.* (1992) Flow cytometric characterisation of proliferating cell nuclear antigen using the monoclonal antibody PC10. [Eur J Cancer. 28A \(12\): 2010-7.](#)
6. 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. [Exp Cell Res. 205 \(2\): 320-5.](#)
7. Elsässer, H.P. *et al.* (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.](#)
8. Harris, L. *et al.* (2006) Characterisation of cell types in abalone (*Haliotis* spp.) tissues using immunohistochemical techniques [Aquaculture 261: 1413-21](#)
9. Buggins, A.G. *et al.* (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.](#)
10. Kapitonova, M.Y. *et al.* (2010) Immunohistochemical characteristics of the hypophysis in normal conditions and chronic stress. [Neurosci Behav Physiol. 40: 97-102.](#)
11. Franz-Odenaal, T.A. (2008) Toward understanding the development of scleral ossicles in the chicken, *Gallus gallus*. [Dev Dyn. 237: 3240-51.](#)
12. Hashimoto, Y. *et al.* (2010) Rad51 protects nascent DNA from Mre11-dependent degradation and promotes continuous DNA synthesis. [Nat Struct Mol Biol. 17: 1305-11.](#)
13. Jenkins, H. *et al.* (1993) Nuclei that lack a lamina accumulate karyophilic proteins and assemble a nuclear matrix. [J Cell Sci. 106: 275-85.](#)
14. Park, J.H. *et al.* (2008) Gastric lesions and immune responses caused by long-term infection with *Helicobacter heilmannii* 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. DO NOT FREEZE. This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.
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Shelf Life	18 months from date of despatch
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Health And Safety Information	Material Safety Datasheet documentation #10131 available at: 10131: https://www.bio-rad-antibodies.com/uploads/MSDS/10131.pdf
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Regulatory	For research purposes only
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Printed on 05 May 2018