



**BMA BIOMEDICALS**

BMA BIOMEDICALS  
Rheinstrasse 28-32  
CH-4302 Augst (Switzerland)  
Phone: ++41 61 811 6222  
Fax: ++41 61 811 6006  
info@bma.ch  
www.bma.ch

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## Monoclonal Antibody to Porcine C-Reactive Protein

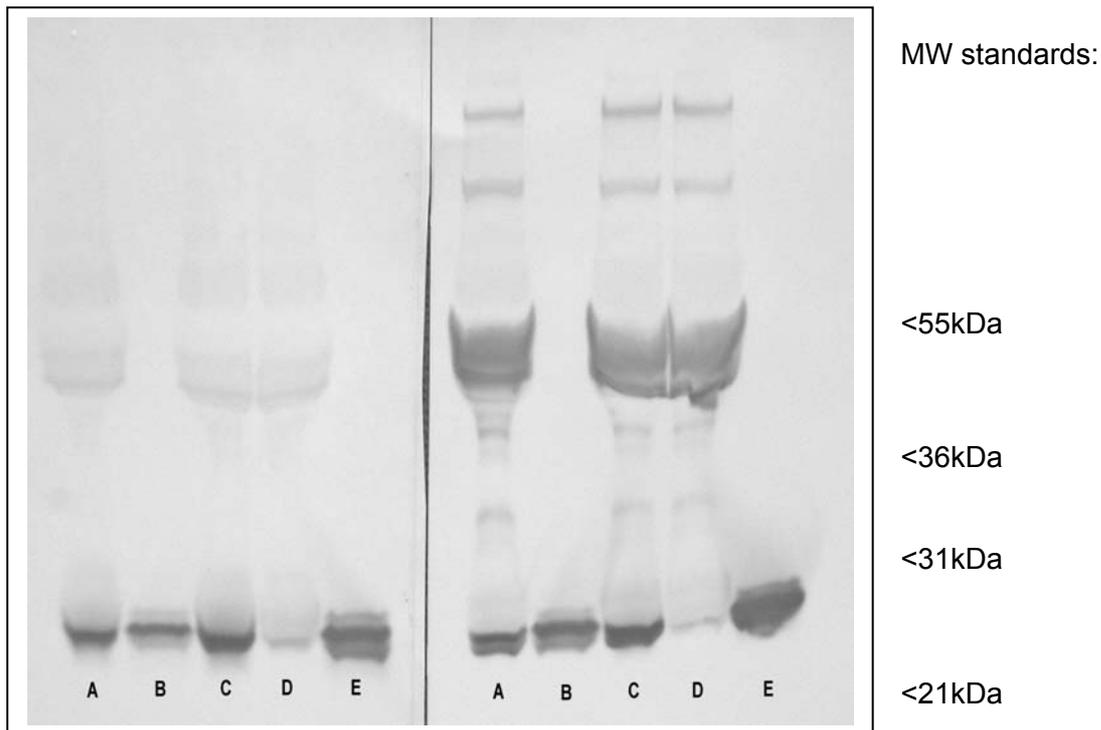
Monoclonal antibody PC1 recognizes porcine C-reactive protein (CRP). CRP belongs to a highly conserved phylogenetically ancient family called pentraxins, which have five identical non-covalently linked subunits. Native CRP in its pentameric form has a molecular weight of approximately 115kDa. As in humans, CRP is an acute-phase protein in pigs. It has been suspected to be directly involved in the pathogenesis of ischemic diseases through the activation of the complement system. CRP levels have been measured in porcine serum. Median levels in specific pathogen-free animals were 5µg/ml and increased 40- to 70-fold due to inflammation or infection with *Mycoplasma hyopneumoniae*.

Monoclonal antibody PC1 was generated against purified porcine CRP and was selected for being of the IgG1 subclass.

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<b>Product Number:</b>	T-3508 (Lot 01PO1006)
<b>Clone:</b>	PC1
<b>Host species, isotype:</b>	Mouse IgG1, kappa
<b>Quantity:</b>	250µg
<b>Format:</b>	Purified, liquid solution  Supplied as 0.25ml solution. This stock solution contains 1mg/ml IgG, phosphate buffered saline pH 7.2 (PBS), and 0.09% sodium azide as a preservative. No stabilizing protein has been added.
<b>Stability:</b>	Original vial: 6 months at 4° to 8°C, 1 year at -20°C. Avoid repeated thawing and freezing.
<b>Applications:</b>	Tested for ELISA and Western Blot.  <b>Approximate working dilutions:</b> ELISA: 0.5µg/ml (1:2'000) Western Blot: 1µg/ml  Optimal dilutions should be determined by the end user. Please see <a href="http://www.bma.ch">www.bma.ch</a> for protocols and general information.
<b>Immunogen:</b>	Purified porcine CRP
<b>Antigen, epitope:</b>	The epitope has not been characterized
<b>Specificity:</b>	<b>Pig:</b> CRP  <b>Other species:</b> not yet tested.

Western Blot with monoclonal antibody PC1:



Western blot with porcine plasma and purified porcine CRP (poCRP). Porcine plasma was diluted 1/25 and spiked with 0.08 or 0.3µg purified porcine CRP, respectively. Polyacrylamide gel electrophoresis was performed under reducing and denaturing conditions on a 10-20% gel (Novex), blotted onto nitrocellulose and developed with monoclonal antibody PC1 (left) or competitor's monoclonal antibody (right). Lane A: porcine plasma spiked with 0.08µg poCRP; lane B: 0.08µg poCRP; lane C: porcine plasma spiked with 0.3µg poCRP; lane D: porcine plasma; lane E: 0.3µg poCRP. Monoclonal antibody PC1 barely reacts with with the 50-55kDa bands visible on the right, presumably immunoglobulin heavy chains. Gel was slightly overloaded to allow visibility of CRP band in plasma.

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### Selected references

M.D. Parra et al.: Porcine Acute Phase Protein Concentrations in Different Diseases in Field Conditions. J. Vet. Med. B 53: 488-93 (2006)

S. Martinez-Subiela et al.: A time-resolved immunofluorometric assay for porcine C-reactive protein quantification in whole blood. Luminescence 22: 171-76 (2007)

For *in vitro* research only. Caution: this product contains sodium azide, a poisonous and hazardous substance.