



BMA BIOMEDICALS

Biotinylated 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*.

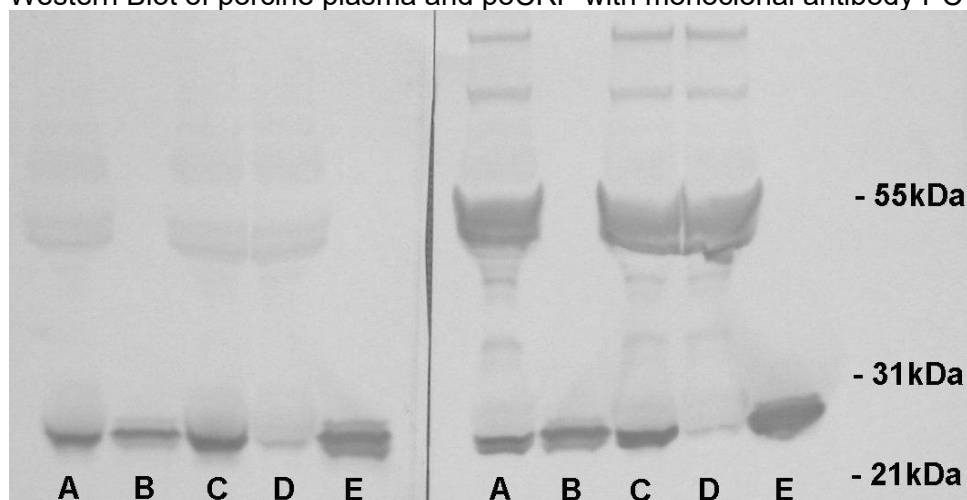
Monoclonal antibody PC1 was generated against purified porcine CRP.

This antibody was produced serum-free, without fetal calf serum.

TECHNICAL AND ANALYTICAL CHARACTERISTICS

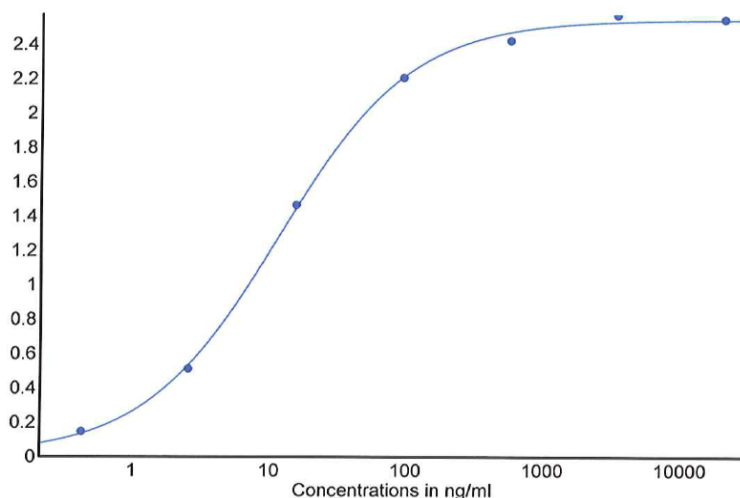
Product Number:	T-3513 (Lot 01PB1519)
Clone:	PC1
Host species, isotype:	Mouse IgG1, kappa
Quantity:	0.25mg
Format:	Affinity purified, biotinylated, lyophilized. Reconstitute by adding 0.5ml distilled water. This stock solution contains 0.5mg/ml IgG, phosphate buffered saline pH 7.2 (PBS), 5mg/ml bovine serum albumin (BSA) as a stabilizer and 0.05% (v/v) Kathon™ CG as a preservative.
Stability:	Original vial: 6 months at 4° to 8°C from date of purchase. Avoid freeze-thaw cycles.
Applications:	Tested for ELISA and Western blot. Approximate working dilutions: ELISA: 0.5µg/ml Western Blot: 1µg/ml Optimal dilutions should be determined by the end user. Please see www.bma.ch for protocols and general information.
Immunogen:	Purified porcine CRP
Protein database:	pig-P49254
Antigen, epitope:	Porcine CRP, the epitope has not been characterized
Specificity:	Pig: CRP Other species: not yet tested.

Western Blot of porcine plasma and poCRP with monoclonal antibody PC1:



Porcine plasma was diluted 1/25 and spiked with 0.08 or 0.3 μ g purified porcine CRP, respectively. PAGE was performed under reducing and denaturing conditions (10-20% gel), blotted (nitrocellulose) and developed with antibody PC1 (left) or competitor's monoclonal antibody (right). Lane A: plasma spiked with 0.08 μ g poCRP; lane B: 0.08 μ g poCRP; lane C: plasma spiked with 0.3 μ g poCRP; lane D: plasma; lane E: 0.3 μ g poCRP. Antibody PC1 barely reacts 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. ©BMA Biomedicals

Direct ELISA with biotinylated antibody PC1:



Titration against immobilized poCRP. Coating with 0.3 μ g/ml poCRP and blocking with 0.1% casein (BMA #3403) gave an EC₅₀ for Lot 01PB1519 of 11.4ng/ml. ©BMA Biomedicals

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. This product contains Kathon™ CG as a preservative.

©2024 BMA BIOMEDICALS, Rheinstrasse 28-32, CH-4302 Augst (Switzerland)
Phone: +41 61 811 6222, Email: info@bma.ch, www.bma.ch