



BMA BIOMEDICALS



Peninsula Laboratories

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## T-4222

### **Rabbit anti C-type Natriuretic Peptide (CNP) (32-53) (human, porcine, rat) [UniProt:, P23582, P18104, P55207]**

The natriuretic peptide family consists of three biologically active peptides: atrial natriuretic peptide (ANP), brain (or B-type) natriuretic peptide (BNP), and C-type natriuretic peptide (CNP). Among these, ANP and BNP are secreted by the heart and act as cardiac hormones. Both ANP and BNP preferentially bind to natriuretic peptide receptor-A (NPR-A) and exert similar effects. Expression and secretion of ANP and BNP are stimulated by various factors and are regulated via multiple signaling pathways. The human BNP precursor proBNP is proteolytically processed to BNP<sub>1-32</sub> and N-terminal proBNP (NT-proBNP) within ventricular myocytes. Uncleaved proBNP as well as mature BNP<sub>1-32</sub> and NT-proBNP is secreted from the heart, and its secretion is increased in patients with heart failure. The 22 amino acid CNP is generated by cleavage of its precursor natriuretic peptide precursor C, or NPPC. Unlike ANP and BNP, CNP does not have direct natriuretic activity, because it acts through the B-type natriuretic receptor NPRB, whereas ANP and BNP are selective for NPR-A.

This antibody was generated by immunization of rabbits with C-type Natriuretic Peptide (CNP) (32-53) (human, porcine, rat) coupled to a carrier protein.

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## **TECHNICAL AND ANALYTICAL CHARACTERISTICS**

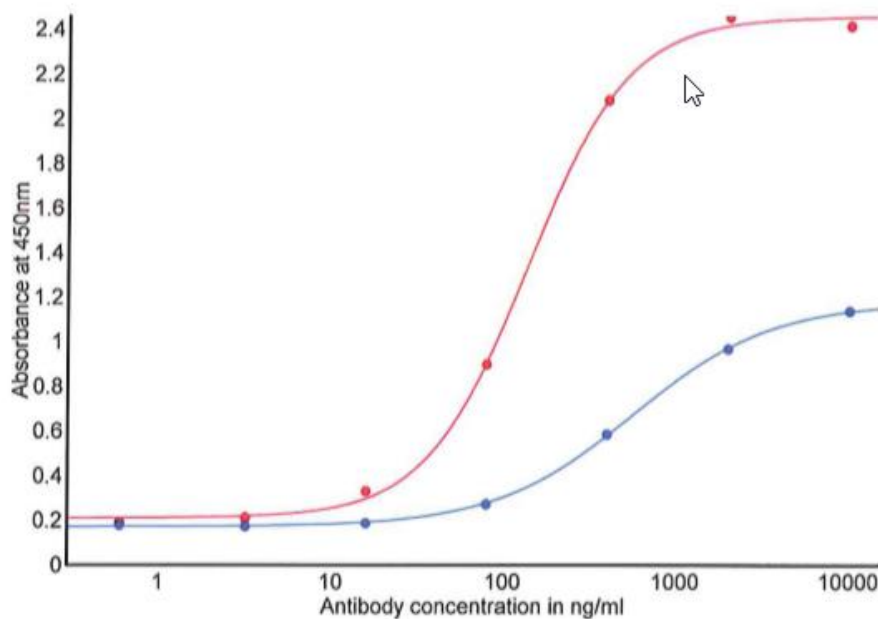
<b>Lot number:</b>	A18PO2183
<b>Host species:</b>	Rabbit IgG
<b>Quantity:</b>	400µg
<b>Format:</b>	Protein A affinity purified from antiserum, lyophilized, packaged under nitrogen. Reconstitute by adding 0.2ml distilled water. This stock solution contains 2mg/ml IgG, phosphate buffered saline pH 7.4 (PBS), 6mg/ml bovine serum albumin (BSA) as a stabilizer, and 0.05% (w/v) ProClin™ 150 as a preservative.
<b>Stability:</b>	Original vial: at least one year at 4° - 8°C from date of delivery. Minimize repeated thawing and freezing of the stock solution by freezing aliquots of the stock solution at -20°C or below.
<b>Applications:</b>	This antibody has been tested and validated in ELISA against CNP and in immunohistochemistry (IHC). Other applications like FACS or Western Blot may work as well. 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>	Synthetic peptide H-Gly-Leu-Ser-Lys-Gly-Cys-Phe-Gly-Leu-Lys-Leu-Asp-Arg-Ile-Gly-Ser-Met-Ser-Gly-Leu-Gly-Cys-OH (disulfide bond) coupled to carrier protein.

## Cross-Reactivity:

Peptide:	%:
CNP (32-53) (human, rat, porcine)	100
CNP (1-53) (rat, porcine)	100
CNP (1-29) (rat, porcine)	0
BNP-32 (rat)	0
BNP-45 (rat)	0
BNP-26 (porcine)	0
ANF (1-28) (human)	0
ANF (1-28) (rat)	0
Thr-Ala-Pro-Arg-Atrial Natriuretic Factor (1-28) (human)	0
Endothelin-1 (human, canine, porcine, rat, mouse, bovine)	0
Angiotensin II	0
Substance P	0

Typical titration curve of purified anti CNP in a competitive ELISA with this antibody:

Procedure: antibody was applied to goat anti rabbit IgG-coated microtiter plate. tracer or tracer / antigen mixture was added, developed with streptavidin-HRPO and TMB as substrate for HRPO.



red curve: titration of antibody with CNP tracer (biotinylated peptide and streptavidin-HRPO); blue curve: inhibition of tracer by antigen, showing affinity of antibody for CNP and tracer.

Related Products: S-1512: ELISA, extraction-free for human samples

This product contains ProClin™ 150 as a preservative and is intended for laboratory use and research purposes only. Purchase of this product does not include authorization to use it in diagnostic or therapeutic applications.

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rabbit IgG

17.08.2021