



BMA BIOMEDICALS



Peninsula Laboratories

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**S-1193**

**C-type Natriuretic Peptide (32-53) (human, porcine, rat)  
ELISA**

The natriuretic peptide family consists of three biologically active peptides: atrial natriuretic peptide (ANP), brain 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 NPRA.

This ELISA was developed with serum from rabbits immunized with C-type Natriuretic Peptide (CNP) (32-53) coupled to a carrier protein.

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**TECHNICAL AND ANALYTICAL CHARACTERISTICS**

<b>Lot number:</b>	A18PO22139
<b>Host species:</b>	Rabbit IgG
<b>Quantity:</b>	96 tests
<b>Format:</b>	Formulated for extracted samples (EIAH type).
<b>Shelf-life:</b>	One year from production date. Store refrigerated at 4° - 8°C.
<b>Applications:</b>	This ELISA has been validated with the included reagents. It is intended to be used with appropriately extracted samples (original protocol III, Std.Ab1hr.Bt). For research use only. Please see <a href="http://www.bma.ch">www.bma.ch</a> for protocols and general information.
<b>Range:</b>	0-10ng/ml
<b>Average IC50:</b>	0.45ng/ml
<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.

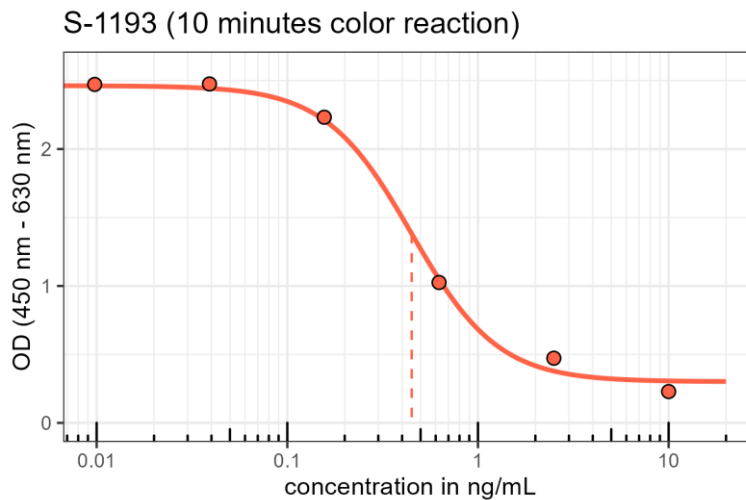
**Cross-Reactivity:**

PEPTIDE:	%:
CNP (32-53) (human, rat, porcine)	100
CNP (1-53) (rat, porcine)	100
CNP (1-29) (rat, porcine)	0

## Cross-Reactivity (continued):

PEPTIDE:	%:
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 C-type Natriuretic Peptide (CNP) (32-53) in a competitive ELISA with this antibody:



Suggested Preparation of Standards		
	ng/ml	Range: 0.01 to 10ng/ml
<b>Stock</b>	1000	
<b>S1</b>	10.00	Add 10µl Stock + 990µl diluent
<b>S2</b>	2.50	Add 200µl S1 + 600µl diluent
<b>S3</b>	0.63	Add 200µl S2 + 600µl diluent
<b>S4</b>	0.16	Add 200µl S3 + 600µl diluent
<b>S5</b>	0.04	Add 200µl S4 + 600µl diluent
<b>S6</b>	0.01	Add 200µl S5 + 600µl diluent
<b>S0</b>	0.00	500µl diluent

Related Products: T-4221: anti CNP (32-53), diluted antiserum, host: rabbit  
T-4222: anti CNP (32-53), purified IgG, host: rabbit  
T-4223: anti CNP (32-53), neat antiserum, host: rabbit

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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31.10.2022