BMA BIOMEDICALS

Peninsula Laboratories

Brain Natriuretic Peptide-32 (BNP-32) (human) ELISA

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_{1-32} and N-terminal proBNP (NT-proBNP) within ventricular myocytes. Uncleaved proBNP as well as mature BNP_{1-32} and NT-proBNP is secreted from the heart, and its secretion is increased in patients with heart failure.

This ELISA was developed with serum from rabbits immunized with BNP-32 coupled to a carrier protein.

TECHNICAL AND ANALYTICAL CHARACTERISTICS

Product number: S-1136 (Lot A16916)

Host species: Rabbit IgG

Quantity: 96 tests

Format: Formulated for extracted samples (EIAH type).

Shelf-life: One year from date of purchase. Store refrigerated at 4° - 8°C.

Applications: This ELISA has been validated with the included reagents. It is intended to be used with appropriately extracted samples, following protocol III.

Please see **www.bma.ch** for protocols and general information.

Range: 0 - 10 ng/ml

Average IC_{50}: 0.4 ng/ml

Immunogen: Synthetic peptide H-Ser-Pro-Lys-Met-Val-Gln-Gly-Ser-Gly-Cys-Phe-Gly-Arg-Lys-Met-Asp-Arg-Ile-Ser-Ser-Ser-Ser-Gly-Leu-Gly-Cys-Lys-Val-Leu-Arg-Arg-His-OH, (Disulfide bond) coupled to carrier protein.

Protein database: human-P16860

Cross-Reactivity:

PEPTIDE	%
BNP-32 (human)	100
BNP-32 (rat)	0.04
BNP-45 (rat)	0
BNP-26 (porcine)	0
ANF (1-28) (human)	0

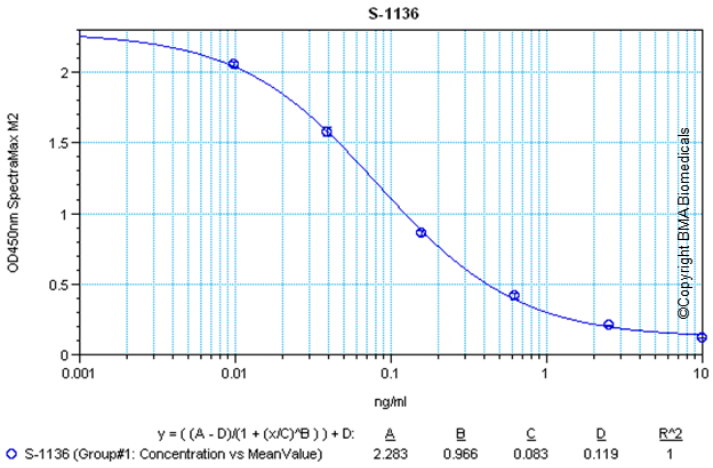
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Cross-Reactivity:

PEPTIDE:	**%**
Endothelin-1 (human, canine, porcine, rat, mouse, bovine)	0
Angiotensin II (human)	0
VIP (human, bovine, porcine, rat)	0

Cross-reactivity data are based on RIA analysis.

Typical titration curve of human BNP-32 in a competitive ELISA with this antibody:



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

Related Products:

S-1194: BNP-32 ELISA, extraction-free for human samples
T-4021: Rabbit anti-BNP-32, diluted antiseum, (hu)
T-4022: Rabbit anti-BNP-32, purified IgG, (hu)
T-4023: Rabbit anti-BNP-32, neat rabbit antiserum, (hu)
T-4201: Rabbit anti-BNP-32, diluted antiseum, (po)
T-4206: Rabbit anti-BNP-32, purified IgG, (rt)
T-4207: Rabbit anti-BNP-32, neat antiserum, (rt)

This product contains Thimerosal as a preservative and is intended for laboratory use and research purposes only. Not for diagnostic or therapeutic applications.