

## Rat NT-proBNP ELISA

for the quantitative determination of rat N-terminal pro-brain natriuretic peptide (NT-proBNP) in serum or plasma

Cat. No. BI-1204R, 12 x 8 tests

FOR RESEARCH USE ONLY

### SAMPLE VALUES

#### Rat NT-proBNP Values in Apparently Healthy Animals

To provide an estimation of rat NT-proBNP values from apparently healthy rats we measured a small sample number of rat serum/plasma samples deriving from rat strains with different genetic backgrounds. Rat NT-proBNP reference values may differ from other rat strains.

*A summary of the results is shown below:*

Sample matrix	n*	Rat NT-proBNP (pg/ml)				Detectable (%)
		Mean	Median	Minimum	Maximum	
Serum	6	82	74	0	169	83
Plasma **	14	47	22	0	185	86

\* samples derived from rat strains with different genetic backgrounds.

Rat NT-proBNP reference values may differ between strains.

\*\*EDTA and Citrate plasma

It is recommended to establish the normal range for each laboratory.

#### Rat NT-proBNP Values in a Clinical Cohort (rat models)

Rat NT-proBNP levels were measured in rats from the respective control groups and in rats from kidney disease models adriamycin nephropathy (AN) and renal mass reduction (RMR).

*Summary of rat NT-proBNP values in rats (control group /AN)*

Cohort	n	Rat NT-proBNP (pg/ml)			
		Mean	Median	Minimum	Maximum
Control group	5	335	379	270	405
AN	8	712	706	490	922

Detailed data:

ID	Rat NT-proBNP (pg/ml)	
	Control group	AN
#1	384	788
#2	379	623
#3	270	490
#4	405	688
#5	237	840
#6	n.a.	922
#7	n.a.	723
#8	n.a.	624

n.a.=not available

Summary of rat NT-proBNP values in rats (control group/RMR):

Cohort	n	Rat NT-proBNP (pg/ml)			
		Mean	Median	Minimum	Maximum
Control group	4	108	110	45	169
RMR	7	767	708	275	1724

Detailed data:

ID	Rat NT-proBNP (pg/ml)	
	Control group	RMR
#1	90	275
#2	129	587
#3	45	797
#4	169	814
#5	n.a.	708
#6	n.a.	463
#7	n.a.	1724

n.a.=not available

## Rat NT-proBNP ASSAY CHARACTERISTICS Summary

<b>Method</b>	Sandwich ELISA, HRP/TMB, 12x8-well detachable strips				
<b>Sample type</b>	Serum and plasma				
<b>Sample volume</b>	10 µl / well				
<b>Assay time</b>	2 hours / 1 hour / 30 min				
<b>Sensitivity</b>	LOD: 21pg/ml, LLOQ: 50pg/ml				
<b>Standard range</b>	0 – 3200 pg/ml (0 / 100 / 200 / 400 / 800 / 1600 / 3200)				
<b>Precision</b>		<b>n</b>	<b>Average %CV</b>		
	<b>Within-run</b>	3	≤6		
	<b>In-between-run</b>	9	≤4		
<b>Accuracy</b>		<b>n</b>	<b>Average %recovery</b>		
			<b>+1600 pg/ml</b>	<b>+400 pg/ml</b>	
	<b>Rat serum</b>	6	90	86	
	<b>Rat plasma</b>	3	88	81	
<b>Dilution linearity of endogenous rat NT-proBNP</b>		<b>n</b>	<b>Average % of expected dilution</b>		
			<b>1+1</b>	<b>1+3</b>	<b>1+7</b>
	<b>Rat serum</b>	5	106	116	113
<b>Specificity</b>	Endogenous and recombinant rat NT-proBNP				
<b>Use</b>	Research use only				
<b>Values of healthy animals*</b>		<b>n</b>	<b>Median NT-proBNP (pg/ml)</b>		
	<b>Rat serum</b>	6	74		
	<b>Rat plasma</b>	14	22		
<b>Values in CTRL group - disease model AN</b>	<b>Rat serum</b>	5	379		
<b>Values in disease model AN</b>	<b>Rat serum</b>	8	706		
<b>Values in CTRL group - disease model RMR</b>	<b>Rat serum</b>	4	110		
<b>Values in disease model RMR</b>	<b>Rat serum</b>	7	708		

\* values derive from from rat strains with different genetic backgrounds  
 Abbreviations: CTRL: control; AD: Adriamycin Nephropathy; RMR: renal mass reduction