

## CARDIAC SAFETY BIOMARKER ASSAYS

for translational research and drug discovery



Rat NT-proBNP  
NT-proANP

ELISA Assay Kits



### DETECTING CARDIOTOXICITY

with Rat NT-proBNP & NT-proANP ELISA Assays

- EFFICIENT - low sample volume (10  $\mu$ l/well)
- CONVENIENT - kit control included
- RELIABLE - sample values provided
- TRUSTED - widely cited



## DETECTING CARDIOTOXICITY with NT-proBNP & NT-proANP

The cardiac biomarkers NT-proBNP and NT-proANP have successfully been applied in toxicology studies to detect cardiovascular injury early in preclinical drug development. The biomarkers can reliably be measured using an ELISA Assay.

### Rat NT-proBNP ELISA Assay Kit

- Product code: BI-1204R
- Time to result: 3.5 hours
- Sample types: rat serum and plasma
- Sample volume: 10 µl/well
- Sensitivity: 21 pg/ml
- Standard range: 0-3200 pg/ml
- Specificity: rat NT-proBNP <sup>(1)</sup>

### NT-proANP ELISA Assay Kit

- Product code: BI-20892
- Time to result: 3.5 hours
- Sample types: serum, plasma (human, rodents)
- Sample volume: 10 µl/well
- Sensitivity: 0.64 ng/ml
- Standard range: 0-127 ng/ml
- Specificity: human NT-proANP (equivalent to proANP 1-98)
- Suitable for human and non-human samples (high cross-reactivity between species: rat, mouse, rabbit)
- Widely cited as marker of drug-induced hypertrophy in rats <sup>(2-6)</sup>



### Citations

1. Leucine Supplementation Improves Diastolic Function in HFpEF by HDAC4 Inhibition. *Alves PKN et al., Cells. 2023. 2;12(21):2561.*
2. Cross-laboratory analytical validation of the cardiac biomarker NT-proANP in rat. *Vinken P et al., Pharmacol Toxicol Methods. 2016. 77:58-65.*
3. An initial characterization of N-terminal-proatrial natriuretic peptide in serum of Sprague Dawley rats. *Colton HM et al., Toxicol Sci. 2011. 120:262-268.*
4. Evaluation of Cardiac Toxicity Biomarkers in Rats from Different Laboratories. *Kim K et al., Toxicol Pathol. 2016. 44:1072-1083.*
5. Serum Natriuretic Peptides as Differential Biomarkers Allowing for the Distinction between Physiologic and Pathologic Left Ventricular Hypertrophy. *Dunn ME et al., for The Cardiac Hypertrophy Working Group of the Predictive Safety Testing Consortium. Toxicol Pathol. 2017. 45(2):334-352.*
6. Natriuretic Peptides as Cardiovascular Safety Biomarkers in Rats: Comparison With Blood Pressure, Heart Rate, and Heart Weight. *Engle SK et al., Toxicol Sci. 2016. 149(2):458-72.*

