CANINE

# Vcheck NT-proBNP


## Quantitative Results are at the Heart of Canine Care

The first and only, in vitro diagnostic test kit for the in-clinic, quantitative measurement of NT-proBNP concentration in canine serum, Vcheck's canine NT-proBNP test allows for identification of this cardiac biomarker. Pro-hormone (proBNP) is produced by cardiac muscle cells and rises due to increased myocardial wall stress. In dogs, NT-proBNP is correlated with heart size and systolic function. The test kit precisely quantifies the degree of elevation of NT-proBNP levels in dogs within minutes, allowing veterinarians to quickly prescribe decisive treatment plans related to cardiac issues without the need for an outside reference lab.

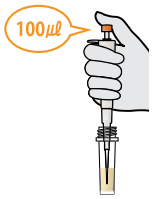
## Clinical Applications

- Early diagnosis of heart disease in dogs
- Distinguishes cardiac from respiratory disease
- Identifies dogs at high risk of congestive heart failure
- Chronic monitoring of dogs with MMVD
- Preanethesia screening
- General wellness visit screenings for pets predisposed to heart conditions

## Specifications

| | |
|---|---|
| **Species** | Canine |
| **Sample Type** | Serum 100 µl |
| **Measurement** | Quantitative |
| **Range** | 500 - 10,000 pmol/L |
| **Testing Time** | 15 minutes |
| **Storage Condition** | 2 - 8° C |

## Simple Testing Procedure

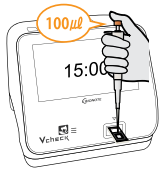



**Dilute Sample**

Use a 100 µl pipette to draw 100 µl of the serum and add to the assay diluent tube.


**Mix**

Use the same pipette to mix the sample with diluent by pipetting 5 - 6 times.




**Measure**

Add 100 µl of the mixed sample to the sample well of the test device and press [START].

| Product Name | Product Number | Product Type | Packing Unit |
|---|---|---|---|
| Vcheck Canine NT-pro BNP | VCF132DC | Device | 5 Tests/Kit |

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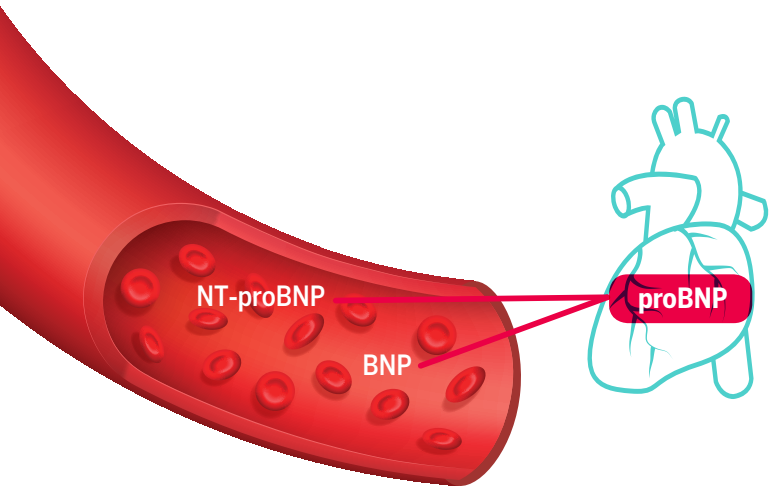
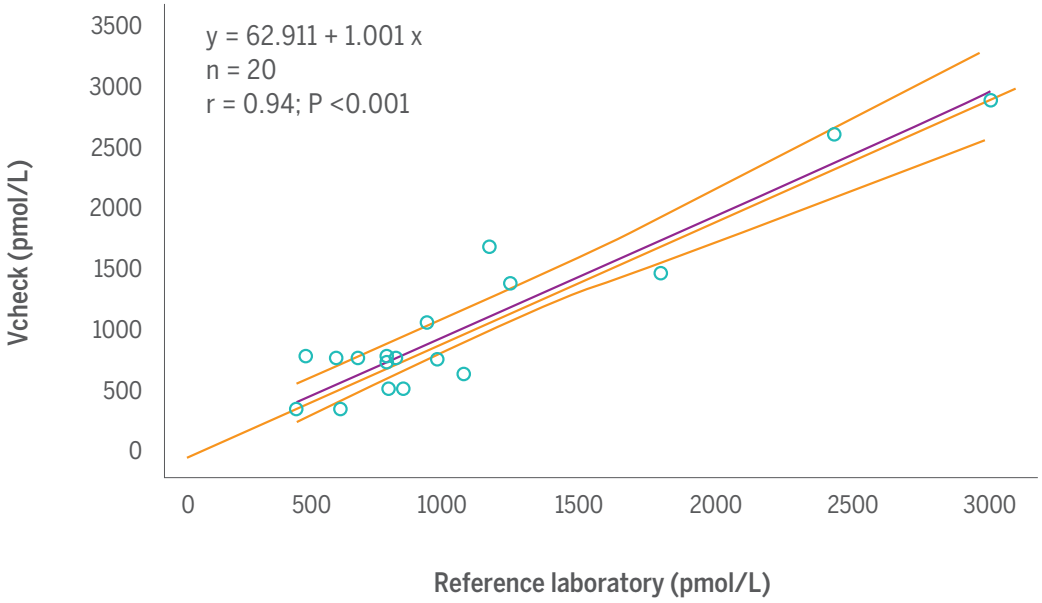



## A Closer Look: NT-proBNP

The pro-hormone (proBNP) is produced by the cardiac muscle cells and rises due to increased myocardial wall stress. Upon release in the blood, it is cleaved into BNP and NT-proBNP. Due to its longer half-life and stability, NT-proBNP is better suited as a diagnostic biomarker for the diagnosis of heart diseases in dogs.

## Comparative Analysis

When frozen samples were shipped using dry ice to a reference lab, analyzer comparison of the Vcheck in-clinic analysis to the reference lab analysis showed excellent correlation, with a slope of 1 and a mild positive bias of 63 pmol/L (r=.94, $R^2$ =0.90), as shown in the graph below. When samples were treated in a real-world, in-clinic setting, the $R^2$ falls to 0.85 and the positive bias increases to >750 pmol/L. This positive bias of the in-house assay in comparison to the reference laboratory is consistent with sample degradation. When paired sample results are compared, these discrepancies are clinically significant in approximately 30% of the samples, with a resultant difference in diagnosis.




Dr. Kendal E. Harr DVM, MS, DACVP. (2021) Bionote Study: Veterinary Application of Bionote's N Terminal - pro Brain Natriuretic Peptide (NT-proBNP) Sample Handling and Significance of Temperature Control.

Collins, SA, Patteson, MW, Connolly, DJ, Brodbelt, DC, Torrance, AG, Harris, JD. Effects of sample handling on serum N-terminal proB-type natriuretic peptide concentration in normal dogs and dogs with heart disease. Journal of Veterinary Cardiology 2010;12:1;41-48.

Vcheck from BIONOTE

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