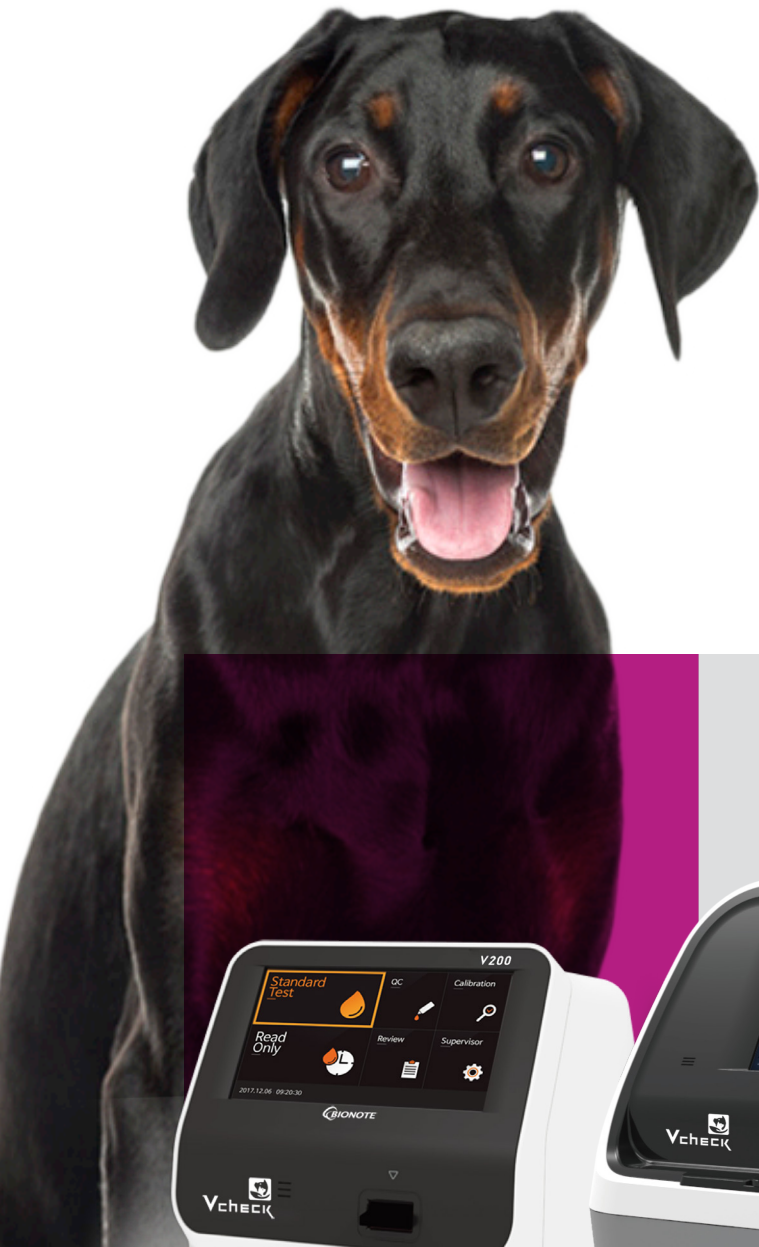


# Vcheck Canine TnI

Quantitative marker of  
myocardial injury

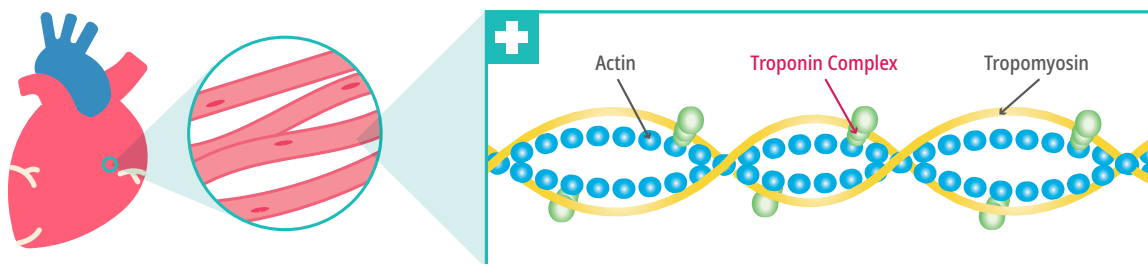


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## What is Canine TnI?

Troponin consists of 3 subunits (troponin I, T, and C) which together function as the molecular switch of cardiomyocyte contraction. Among them, cardiac Troponin I (TnI) is a sensitive and specific circulating marker of cardiac injury for dogs.

Cardiac injury causes the release of TnI into the circulation, where its concentration is correlated to the severity of the damage.



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## What TnI levels tell us?

Check Canine TnI can provide important diagnostic and prognostic information in patients with cardiovascular or non-cardiac diseases as a cardiac injury marker of choice.

### Increases with increasing severity of mitral valve disease (MMVD)

- Increased TnI indicates ongoing myocyte damage in a chronic remodeling process
- Significantly associated with the severity of MMVD

### Detects early phases of dilated cardiomyopathy (DCM)

- Valuable diagnostic test that can detect cardiomyopathy in apparently healthy dogs
- 81.2% sensitivity and 73.2% specificity to identify the presence of DCM (> 0.11 ng/ml)

J Vet Intern Med. 2019 Jan-Feb; 33(1): 54-63

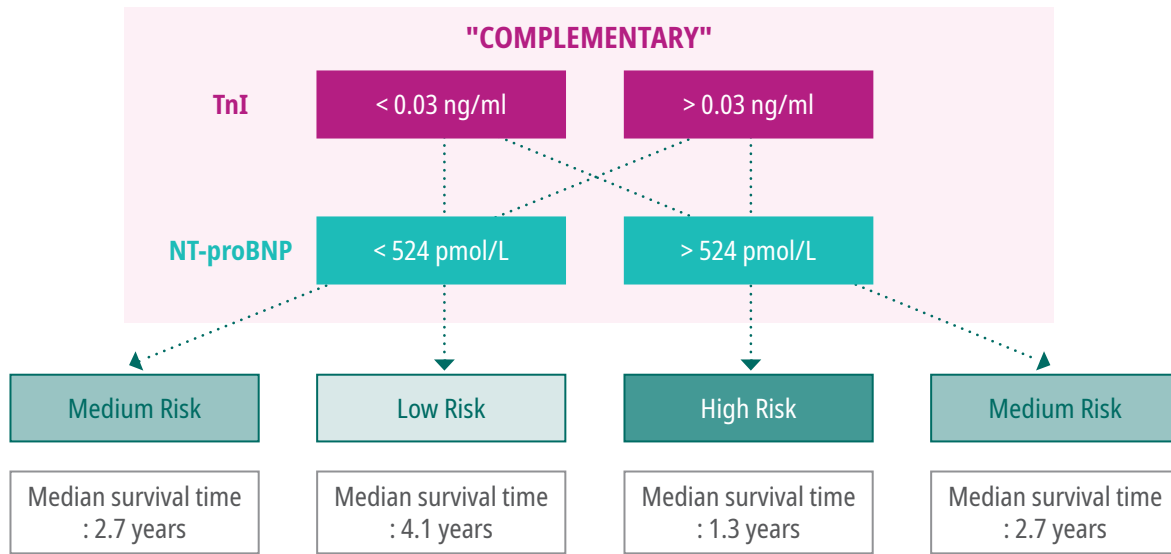
### Useful in assessing the prognosis in critically ill patients

- Provides prognostic information irrespective of the underlying disease (cardiac or noncardiac)
- Plays a role in identifying long-term risk patients

# Prognostic Algorithm

Combined measurement of TnI and NT-proBNP is prognostically superior to measuring each alone in dogs with MMVD. *J Vet Intern Med 2012;26:302-311*

- ▶ TnI Testing **Cardiac Injury**
- ▶ NT-proBNP Testing for **Cardiac Stretching**



**[Algorithm]** For dogs with MMVD of varying severity

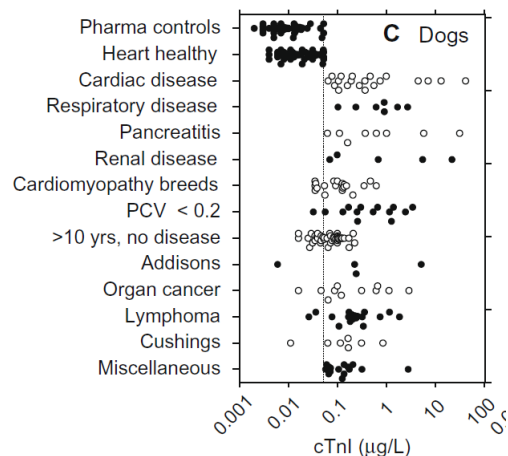
# Myocardial Injury from Non-cardiac

Noncardiac critical disease can also affect the heart muscle. Measurement of TnI is necessary to discover the involvement of myocardial injury in critically ill patients.

## Various diseases increasing TnI levels

- ▶ Systemic inflammation
- ▶ Anemia
- ▶ Pancreatitis
- ▶ Cancer
- ▶ Respiratory disease
- ▶ Parvoviral enteritis
- ▶ Other Infectious diseases (leptospirosis, leishmaniasis, ehrlichiosis)

*The Veterinary Journal 185 (2010) 50-57*



# Vcheck Canine TnI

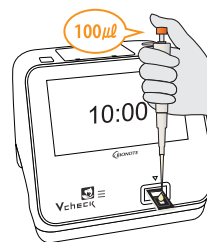
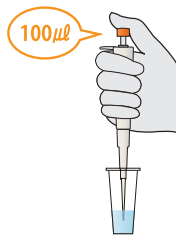
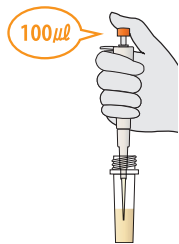
## Specifications

- Species : Dog
- Sample : Serum 100  $\mu$ l
- Testing Time : 10 minutes
- Measurement : Quantitative
- Measurement Range : 0.01 – 20 ng/ml
- Storage Condition : 1 - 30  $^{\circ}$ C



## Test Procedure

- 1 Add 100  $\mu$ l of the sample to the assay diluent tube
- 2 Mix well 5-6 times by using a 100  $\mu$ l pipette
- 3 Add 100  $\mu$ l of the mixed sample into the test device



Samples should be tested immediately after collection. (If not, freeze the samples at  $-20^{\circ}$  C or below for storage. Do not freeze and thaw repeatedly.)

## Reference Ranges

$< 0.03$ ng/ml	$0.03 - 0.12$ ng/ml	$> 0.12$ ng/ml
Normal	Suspected Possibility of myocardial injury	Abnormal High possibility of myocardial injury

\* TnI concentrations should not be used to either confirm or exclude primary cardiac disease without the simultaneous use of echocardiography.

\*\* When interpreting a slight increase of TnI in healthy dogs, biological variability of TnI or old ages should be taken into account.

## Ordering Information

Product No.	Product Name	Product Type	Packing Unit
VCF137DC	Vcheck Canine TnI	Device	5 Tests/Kit



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TEL: 82-31-211-0516 | FAX: 82-31-8003-0618 | [www.bionote.co.kr](http://www.bionote.co.kr)