B-type natriuretic peptide (BNP) is a hormone released from the heart in increased amounts in response to myocardial stretch or hypoxia. The ANTECH™ Cardio-BNP test is a new canine-specific ELISA that measures the concentration of the biologically active form of BNP, known as “cBNP”, in a patient’s blood. When combined with other clinical information, this biomarker test accurately supports or excludes the diagnosis of congestive heart failure and aids in assessing the severity of disease in cardiac patients. Canine BNP levels have been demonstrated to correlate with the International Small Animal Cardiac Health Council (ISACHC) heart failure classification system.

ANTECH™ Cardio-BNP allows you to:
- Reliably detect congestive heart failure (CHF) in dogs
- Differentiate between cardiac and respiratory disease
- Assess heart disease severity in canine patients

Why use a cardiac biomarker?
Dogs suffering from congestive heart failure can present with clinical signs including coughing, dyspnea, exercise intolerance or lethargy. Alternatively, dogs with mitral valve disease or dilated cardiomyopathy—two of the most common heart diseases in dogs—can be asymptomatic, perhaps presenting with a heart murmur or arrhythmia discovered during routine physical examination.

The often challenging task of differentiating cardiac and respiratory disease is key to directing further diagnostic testing and treatment. ANTECH™ Cardio-BNP results can be used to support thoracic radiographic findings but may be most helpful for patients in which thoracic radiographs are difficult to obtain due to clinical instability, or difficult to interpret due to breed conformation.

The ANTECH™ Cardio-BNP test is easy to administer and provides a simple, quantitative result along with comments to help you interpret the result and understand its correlation with heart disease severity. As a cardiac biomarker, the Cardio-BNP test offers complementary information that is actionable and straightforward to explain to clients.
More about BNP and the ANTECH™ Cardio-BNP assay

The BNP hormone is secreted from the ventricular cardiac muscle into the plasma in response to volume or pressure overload1, and plasma BNP concentration is increased in dogs with CHF2. A recent study by DeFrancesco et al3 tested the usefulness of a plasma BNP ELISA in the diagnosis of heart failure in dogs presenting with cough or dyspnea. The study found that dogs with CHF as the cause of their cough or dyspnea had a greater than 10-fold increase in median BNP concentration over dogs with non-cardiac causes. With a cut-off BNP concentration of 6 pg/mL, the test was found to be 90% sensitive and 78% specific for diagnosing CHF in dogs with cough or dyspnea. This canine-specific ELISA, manufactured by BIONSITE, Inc., is now commercially available for the first time as the ANTECH™ Cardio-BNP assay.

The study also showed that BNP concentrations increased with the severity of heart failure and correlated with the International Small Animal Cardiac Health Council (ISACHC) heart failure classification, demonstrating the assay’s potential value as an indicator of the severity of heart disease. The BNP assay holds promise, as well, for therapeutic monitoring and as an objective prognostic measure for patients with heart failure. Further studies are planned to assess the utility of the ANTECH™ Cardio-BNP test in these applications.

Ordering Information:

| Indications: | • Cough, dyspnea, breathlessness, lethargy, or exercise intolerance.  
• Subclinical signs such as heart murmur or arrhythmia. |
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<td>Results:</td>
<td>Plasma BNP concentration, measured in pg/mL, with interpretive comments. Due to sample instability, recheck requests must be made within 48 hours of the sample having been accessioned.</td>
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<tr>
<td>Test code:</td>
<td>T1010 (U.S.) CT1010 (Canada) Turnaround time: 24 hours</td>
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| Submission requirements: | EDTA plasma immediately separated and submitted in grey-top ANTECH Cardio-BNP tube. Note: Do not remove plastic seal around top of tube.  
1. Draw 1.5 to 2 ml blood into lavender top tube (EDTA); rotate 5 times.  
2. Centrifuge immediately for 3-5 minutes.  
3. Remove 0.5 ml plasma and immediately inject into Cardio-BNP tube. Before removing needle, draw air from tube to create a strong vacuum, then rotate 5 times.  
4. Samples must be refrigerated until courier pick-up. Samples cannot be stored for later analysis. |
| How to order Cardio-BNP tubes: | Contact ANTECH Customer Service and request item BNPTUBE-C ($3.00 deposit per tube, credited back to your account with every BNP test order). Minimum order size: 4 tubes. Please allow 2-3 days. |