

# Evaluation of correlation between the BioNote Vcheck and a commercial ELISA for Canine cPL

**Key words:** Bionote Vcheck, Acute pancreatitis, cPL, canine pancreas-specific lipase, correlation

## Introduction

Acute pancreatitis (AP) in dogs is a potentially reversible condition, but in severe forms it can cause systemic and local complications.<sup>1</sup> But diagnosis of AP can be difficult because of non-specific clinical signs.<sup>2</sup> The cPL (canine pancreas-specific lipase) is lipase enzyme that originate specifically in the pancreas. The cPL assay is the most sensitive non-invasive tests for the diagnosis of AP.

The BioNote Vcheck cPL is an in vitro fluorescent immunoassay test kit for the quantitative measurement of cPL concentration in canine serum. Since the kit provides quantitative measurement of cPL levels, BioNote Vcheck cPL can be tested to diagnose pancreatitis.

## Purpose

This is to evaluate correlation between Vcheck and IDEXX SPEC cPL that provides the same diagnostic benefits as the original canine pancreatic lipase immunoreactivity (cPLI), in terms of measuring concentrations of canine serum cPL.

## Materials and Methods

The BioNote Vcheck cPL was carried out in accordance with the protocol provided by BioNote. The sensitivity and specificity of Vcheck cPL was evaluated using the test results from BioNote laboratory.

Fifty canine sera obtained from multiple animal hospitals in the Republic Korea were tested.

## Results

The test results for the 50 experimental canine sera were described in figure 1 and table 1. These samples had various cPL concentrations. 42 samples were above the normal range for the cPL.

We used the IDEXX SPEC cPL ELISA results for these sera as a gold standard test. The diagnostic sensitivity for the BioNote Vcheck cPL was 97.6% and the diagnostic specificity was 100%.

## Conclusion

There were strong agreement between the two assays (IDEXX SPEC ELISA and the BioNote Vcheck) for cPL, which was 96%.

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2. Xenoulis, P. G. (2015). Diagnosis of pancreatitis in dogs and cats. *Journal of small animal practice*, 56(1), 13-26.

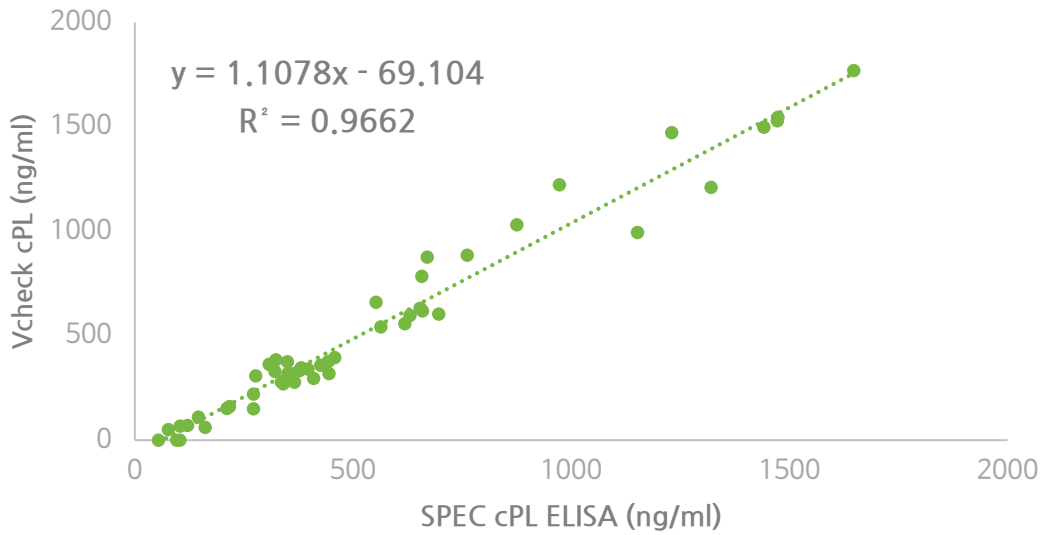


Figure 1. Correlation between Vcheck cPL and SPEC cPL ELISA (n=50)

		Vcheck cPL	Spec cPL ELISA
< 200 ng/ml	Normal	9	8
200~400 ng/ml	Elevated	19	18
> 400 ng/ml	Consistent with pancreatitis	22	24

Table 1. Correlation between normal and abnormal (n=50)