

# Lipase (pancreatic) VET test kit



**MicroVet Diagnostics**

## For veterinary use only!

Veterinary test kit for quantitative in vitro determination of Lipase (pancreatic) from serum or lithium heparin plasma on a Micro-Cube analyser



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### Order information

Order number: C50180  
Order number: C50181  
Order number: C51800

### Indication

Lipase (pancreatic) VET test kit  
Lipase (pancreatic) VET test kit  
Lipase (pancreatic) VET control kit

### Kit size

16 tests  
6 tests  
1 x 5 ml (decision level)



**Test kit preparation: Allow single test at least 10 minutes to warm up to room temperature (20 - 25 °C) by placing the test into the test kit rack. Put test kit package back into refrigerator.**

## Summary

This assay uses the lipase enzymatic method DGGR which is well known as a highly sensitive and specific method for the detection of pancreatitis in animals. Using this assay, lipase is a highly effective biomarker and has shown a > 95% concordance by comparison with a tissue- and species-specific qualitative immunoassay (O'Brien et al., proceedings 15th annual congress of the ESVCP, 2013, p. 125).

## Method

In the presence of colipase and bile acids lipase splits the synthetic substrate (1,2-o-dilauryl-rac-glycero glutaric acid-(6'-methylresorufin) ester) to glycerol and methylresorufin-ester, which is spontaneously degraded to glutaric acid and methylresorufin. The combination of colipase and bile acid makes the reaction specific for pancreatic lipase without interference of esterases and lipolytic enzymes.

The measured absorbance is proportional to the lipase activity in the sample. Photometric measurement of the absorbance rate (kinetic) at 546 nm wavelength.

## Measurement Range

When using a 20 µl pipette: 25 - 300 U/L (Lot dependent)  
When using a 5 µl pipette: 250 - 1200 U/L (Lot dependent)

Sensitivity: 25 U/L

## Sample Material

Serum or lithium heparin plasma. Sample volume according to the menu settings on the laboratory photometer and according to the use of a 20 µl or 5 µl pipette.  
Store samples protected from light!

## Sample material stability:

Stored at 2 - 8 °C: 2 days  
Stored at -20 °C: 1 year

## Test Kit

R1 cuvette filled with Good's buffer.  
R2 cap filled with tartrate buffer, taurodehydroxycholate and colour substrate.

## Stability and Storage

Stable until the expiration date stated on the label when stored in unopened vacuum package at 2 - 8 °C. Opening the vacuum package may limit the reagent stability to three months (stored at 2 - 8 °C) from the date of opening. DO NOT FREEZE!

## Warnings and Precautions

DO NOT INGEST! Avoid contact with skin and eyes.  
Observe all necessary precautions for the use of laboratory reagents.

## Waste Management

Please refer to local legal requirements.

## Reference Range

Cat: 0 - 35 U/L  
Dog: 0 - 125 U/L

It is recommended that each laboratory establishes its own reference ranges.

## Quality Control

For internal quality control the MVD Lipase VET control kit is recommended. Order number: C51800

## Precision

Reproducibility within-run:  
Dog serum; N = 20; mean = 137 U/L; CV = 3%;

## Correlation

Dog sample correlation:  
 $y$  (MVD Lipase) = 1.2286 x (cobas Lipase) - 9.0493;  $R^2$  = 0.9668;

Cat sample correlation:  
 $y$  (MVD Lipase) = 1.1526 x (cobas Lipase) + 4.8579;  $R^2$  = 0.9713;

## Interferences

The test system has been analysed for various interferences. Criterion was the recovery within 10% of initial values.

Bilirubin 60 mg/dl  
Haemoglobin 500 mg/dl  
Triglycerides 1000 mg/dl

## References

- KOOK, P.H. et al. (2014), Agreement of serum Spec cPL with the 1,2-o-dilauryl-rac-glycero glutaric acid-(6'-methylresorufin) ester (DGGR) lipase assay and with pancreatic ultrasonography in dogs with suspected pancreatitis, J Vet Intern Med.; 28:863 - 870;
- OPPLIGER, S. et al. (2013), Agreement of the serum Spec fPL™ and 1,2-o-dilauryl-rac-glycero-3-glutaric acid-(6'-methylresorufin) ester lipase assay for the determination of serum lipase in cats with suspicion of pancreatitis, J Vet Intern Med.; 27:1077 - 1082;
- GRUBER, M. (2014); Evaluation Report - Eurolyser Lipase VET test kit (VT0190) on solo analyser, Eurolyser Diagnostica GmbH, 03-06;



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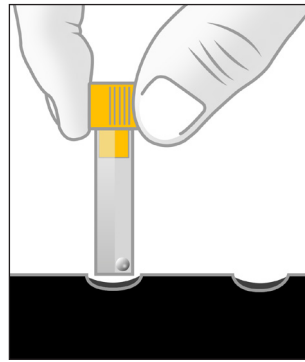
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# Processing of a Lipase (pancreatic) VET test

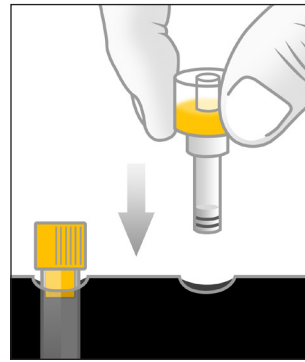
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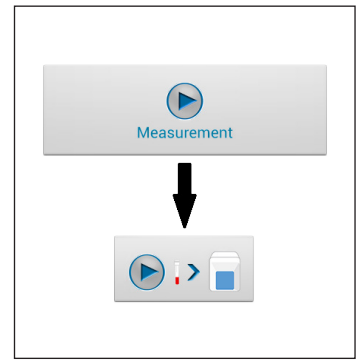
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1.2

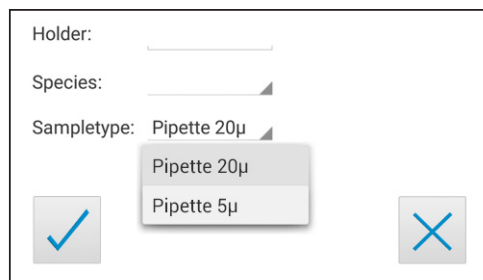


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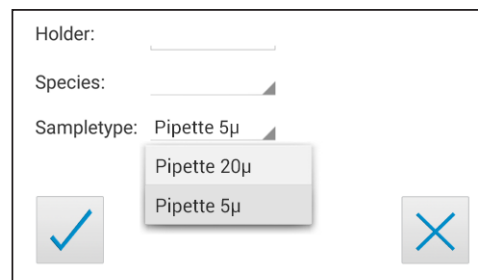
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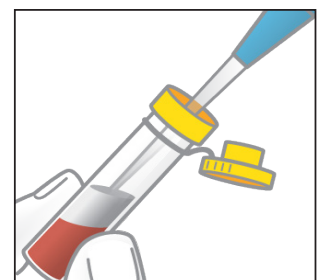


2.1a

OR

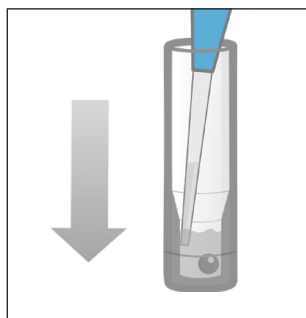


2.1b

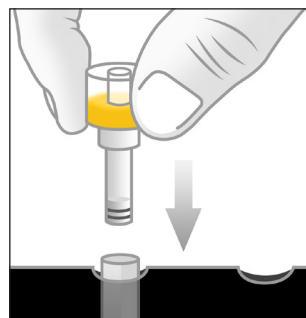


2.2

3.



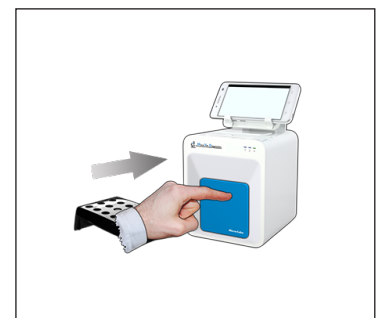
3.1



3.2



3.3



3.4

## ATTENTION!

Allow single test at least 10 minutes to warm up to room temperature (20 - 25 °C) before use!

### 1. Preparation of test system

- 1.1 Place RFID card
- 1.2 Place R1 cuvette in test kit rack
- 1.3 Place R2 cap in test kit rack
- 1.4 Press „Measurement“ button, enter required information using the touchscreen

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### 2. Sample preparation

*Choose sample type:*

- 2.1a „Pipette20 $\mu$ “ for measurement range: 25 - 300 U/L  
**OR ...**
- 2.1b „Pipette5 $\mu$ “ for measurement range: 250 - 1200 U/L
- 2.2 Aspirate 20  $\mu$ l **OR** 5  $\mu$ l sample material from centrifuged sample tube

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### 3. Sample processing

- 3.1 Dispense sample INTO THE LIQUID in the R1 cuvette
- 3.2 Apply R2 cap firmly onto R1 cuvette
- 3.3 Place assembled cartridge into laboratory photometer
- 3.4 Start automatic sample processing by closing the door of the Micro-Cube laboratory photometer.

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Technical details subject to change without notice.

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