Test Principle

Canine pancreatic elastase 1 (cPE 1) is a proteolytic digestive enzyme produced and secreted by the pancreas, which remains undegraded during intestinal transit and can be determined in stool. Its concentration in feces directly reflects the exocrine pancreatic function.

Storage and Shelf Life

Test

The test must be stored at +4°C to +27°C and brought to room temperature just prior to use if necessary.

Stool sample

After taking the stool sample, it can be stored at room temperature for up to 5 days. Within these 5 days, either the test must be performed or the sample frozen at -20°C for longer-term storage. The deep-frozen sample is stable for up to 1 year.

Interferences

Very watery stools can lead to false results due to a dilution effect.

Advantages:

- Based on monoclonal antibodies, substitution therapy has no influence on the test result
- Absolutely pancreas-specific
- No blood sampling
- No starvation periods needed
- Intestinal inflammation and blockage of the pancreatic ducts do not interfere with the results
- High specificity and sensitivity

Test Procedure

1. Turn the yellow dosing tip of the extraction system anti-clockwise and remove the yellow dosing tip by pulling it up.
2. Insert the yellow dosing tip in three different places in the stool sample to a depth of 1 cm (all notches must be filled with stool).
3. Please check that all notches of the yellow dosing tip are filled with stool.
Test Procedure

4. Insert the yellow dosing tip with the tip into the yellow cone into the extraction system and turn the tip clockwise to close it.

5. Shake well and tap the tube, if necessary, until all the stool has been removed from the notches in the dosing tip.

6. Leave to stand for 10 minutes.

7. Give the tube a final shake. Caution: no stool should remain attached to the yellow dosing tip. If stool still remains stuck in the dosing tip, the extraction system can be left to stand for up to 1 hour in order to free the tube by repeated shaking.

8. Test open the aluminum packaging and remove the test cassette.

9. Remove the stool sample extract from the extraction system with a pipette.

10. Using the pipette apply 4 drops of extract into the circular sample well on the cassette.

11. Wait exactly 10 minutes and then read the results. Results which are read later may be false.

Interpretation of the Test Results

Quality Control: The test contains an inbuilt control. When a pink band develops in the control region (C) the test has been performed correctly.

Normal: Two pink bands develop, one in the control region (C) and one in the test region (T). A high concentration of canine pancreatic elastase1 indicates a normal exocrine pancreatic function.

Reference concentration: Normal canine pancreatic elastase1 concentration (= Values < 10 µg elastase1/g stool) is an indicator for a normal exocrine pancreatic function.

Low: One pink band opposes in the control region (C). No band develops in the test region (T). A low concentration of canine pancreatic elastase1 indicates exocrine pancreatic insufficiency.

Reference concentration: Low canine pancreatic elastase1 concentration (= Values < 10 µg elastase1/g stool) can be an indicator for an exocrine pancreatic insufficiency.

Invalid: If no pink band appears, the test has not worked.

Application and Test Interpretation

The test is used to measure canine pancreatic elastase1 in stool samples. A low concentration of canine pancreatic elastase1 indicates exocrine pancreatic insufficiency.

Treatment Option: An exocrine pancreatic insufficiency can be treated with enzymes substitution therapy.

Performance: The Pancreas 1 ELISA is a Quick canine test for > 95 % sensitivity and specificity when compared to the Pancreatic Elastase1 canine ELISA.

References

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