I Introduction
There are many different laboratory tests available to aid in the diagnosis of Feline Infectious Peritonitis (FIP). For example direct detection of Feline Coronavirus (FCoV) in macrophages by PCR, indirect detection of anti FCoV antibodies using rapid tests and / or indirect immune-fluorescence tests (IFT) and screening of effusion e.g. by the RIVALTA test, together with other biochemical and cytological tests all have an important role to play in the final diagnosis of FIP.
The RIVALTA test was originally developed by a pathologist named Fabio Rivalta (1867-1959) for differentiating transudate (noninflammable excretion of fluid from pleural and / or abdominal cavities) from exudate (usually inflammatory excretion of fluid from pleural and / or abdominal cavities).

Thus, a RIVALTA test is very useful for the detection or exclusion of a FIP related effusion. Characteristic macroscopic signs of FIP are straw yellow to amber-coloured effusion with floating fibrin flakes and its property to become viscous and ropy during contact with air. Occasionally, the effusion can be clear, milky or bloody. As opposed to transudate, exudates show a high protein content (> 30 g/l). A positive RIVALTA test result due to exudate based on a bacterial peritonitis or lymphoma should be excluded by macroscopic, cytological and / or bacteriological analysis.

The RIVALTA test is not pathognomic for a FIP infection but due to its good sensitivity (a negative test rules out an ongoing FIP infection with a likelihood of 98 %) and good specificity a positive test proves an ongoing FIP infection with a likelihood of 80 %. The RIVALTA test is highly valued by experts compared to detection methods on blood. Furthermore, the published positive (84 %) and negative (97 %) predictive values with a prevalence of 50 % attest to its practical usefulness to the veterinarian.

The RIVALTA FIP-VETube test is a simple, fast, on-site test which allows the veterinarian to detect or exclude an ongoing FIP infection with a high degree of reliability.

II Test principle
When containing protein, the effusion drop precipitates when added to the aqua-acetic acid mixture. This can be observed by the characteristic formation of more or less stable precipitation products or cloudy mists, forming drops or smears. In contrast, a transudate completely dissolves during sinking in the aqua-acetic acid mixture.

For better differentiation, the drop of effusion is stained with methylene blue before adding to the aqua-acetic acid mixture.

III Test-kit components
1 test-kit RIVALTA FIP-VETube contains:
1. 10 RIVALTA FIP-VETubes, each filled with 3.0 ml distilled water
2. 1 dropper bottle A filled with 3.0 ml pure acetic acid (> 99.7 %)
3. 10 effusion vials P coated with methylene blue
4. 1 instructions for use

IV Storage and stability
- Test-kit must be stored not under 15 and not over 25°C, because acetic acid has a very low flash point (+40°C – danger of ignition and explosion) as well as a very high melting point (below temperatures of +16.64°C it becomes solid).
- Expiry 24 months after production date
- Do not use the test kit after expiration of durability

V Special information
- FOR VETERINARY USE ONLY
- RIVALTA FIP-VETube for single use
- Follow instructions for use carefully
- During direct contact, the acetic acid in the dropper bottle A (> 99.7 %) can lead to severe burn of skin and serious eye damage.

RIVALTA FIP-VETube ad us. vet.

Effusion diagnostics for the determination or exclusion of exudate (abdominal and/or pleural effusion material) in cats suspicious for FIP

In vitro diagnosticum

Instructions for use
**VI  Sample preparation**

Add 0.5 to 1 ml of fresh and warm (15–25°C) abdominal or pleural effusion material.

Fill up effusion vial P.

! DO NOT USE FROZEN EFFUSION!

Mix carefully until methylene blue has complete dissolved into the effusion.

**VIII  Test interpretation**

- **strongly positive**
  - Blue, floating drop or funnel with contact to surface
  - Blue, jellyfish like slowly sinking drop (can be partially fragmented)

- **positive**
  - Coagulated blue protein remnants can accumulate at the bottom of the vial. They cannot be dissolved, even by careful mixing of the vial.

- **doubtful**
  - Blue, more or less dissolving cords

- **negative**
  - Blue cords dissolving gradually
  
  By mixing of the vial, a homogeneous coloured fluid develops with the colour of light blue to turquoise. No blue-stained protein remnants are found.

**VII  Test procedure**

Express 1 drop from the dropper bottle A into the RIVALTA FIP-VETube.

Mix carefully.

Break the effusion vial tip and express 1 drop of the stained effusion solution into the RIVALTA FIP-VETube.