Rapid immunochromatographic test for qualitative determination of porcine meat antigen in foods, kitchen and production facilities

**TEST PRINCIPLE**
Consumption and handling of pork meat is strictly prohibited in some religious groups. Pork meat may also cause allergy and food intolerance. *XEMA*<sub>™</sub> PORK represents an immunochromatographic rapid test (lateral flow) and may be used for qualitative or semi-quantitative determination of porcine meat antigen in foods, kitchen and production facilities. In immunochromatographic (lateral flow) method, the target antigens are bound by highly specific antibodies attached to colored microparticles. Then this complex migrates to the test line where binds to another pork-specific antibodies to form a colored line indicating positive result.

**TEST SENSITIVITY AND SPECIFICITY**
In the mixture of meat of different species, *XEMA*<sub>™</sub> PORK determines at least 1/1000 (ie 0.1%) part of the porcine meat antigen. This corresponds approximately to determination of 5–10 milligrams of porcine specific antigen per kilogram of the solid material (5–10 ppm). *XEMA*<sub>™</sub> PORK shows negative result in homogenated meat of following species: veal, lamb, antelopes, horse, moose, reindeer and other deers, chicken, turkey, goose, duck, rabbit. The test is also negative in human blood. AT PRESENT THERE IS NO DATA CONCERNING THE TEST PERFORMANCE WITH THE SPECIMENS OF THE MEAT OF CAMEL AND KANGAROO. If the visual test gives unclear results, we recommend to re-check the sample by the quantitative laboratory methods, e.g. Pork antigen ELISA (*XEMA*, Cat.# K366).

**KIT CONTENTS**
- 5 PORK TEST strips individually packed into sealed aluminium foil pouches;
- 5 Specimen collection tubes;
- Instruction for use

**SPECIMEN HANDLING**
The specimens should be brought to  temperature range +15…+35 °C before use; testing of colder specimens diminishes the sensitivity of the assay; testing of hot specimens is NOT possible! Liquid specimens (meat juice, cooked meat brew, washouts from meat, kitchen dishes or technological surfaces (eg cutting machines) may be tested directly. The limitation for liquid specimens is their viscosity (brew in particular) and turbidity (presence of particulate matter). If the specimen is viscous and cannot reach the test zone of the strip, it should be diluted by warm boiled water. In this case, the sensitivity level of the test should be adjusted by dilution factor. Turbid specimens should be filtered through textile or paper material, or allowed to sediment.

For testing of solid material (fresh or cooked meat, sausages etc.) we recommend the following procedure: using clean (preferably disposable) sharp tool, cut a small piece (0.1–0.5 grams) of the material and place it into the Specimen collection tube. Pour 2–2.5 ml of warm boiled water into the tube; thoroughly close the tube cap and shake the tube vigorously for 15–30 seconds. Put the tube on the table, let the particles set down; the upper layer of the liquid is available for testing. The specimens may be stored at +2…+8 °C within 24 hours. For longer storage we recommend to freeze the specimen or add the food specimen preservative available at XEMA (cat.# S075Z).

**TEST PROCEDURE**
1. If the test strips were stored below 20 °C, bring the required quantity of the strips to the room temperature before opening the pouches.
2. Carefully open the pouch with sharp instrument. TAKE CARE NOT TO DAMAGE THE TEST STRIP.
3. Dip the test strip into the liquid part of the specimen observing the right direction (“HAND” sign upwards) and depth (not deeper than the colored line marked by arrow signs) and keep for 5–10 seconds to ensure soaking.
4. Put the test strip onto the CLEAN horizontal surface; do not touch or move the test strip for 5–10 minutes.
5. Read the test result.

**INTERPRETATION OF THE RESULTS**
Test is considered POSITIVE if TWO colored lines appear in the test zone.

![Positive Test Result](image)

Test is considered NEGATIVE if only ONE colored line is clearly visible.

![Negative Test Result](image)

If NO colored line is formed, the test is INVALID. Try to repeat it with another test strip, check the correct specimen handling and test procedure, expiry date and storage conditions.

**PRECAUTIONS**
- The test strips (dipsticks) should be stored at +2…+25 °C
- Use the test within 10 minutes after opening the pouch because the test strips are very sensitive to moisture
- DO NOT TOUCH the reaction membrane
- Do not use the kit when its pouch is torn, or test strip is broken or damaged
- All the components of the test kit are disposable; do not use them repeatedly
- Do not use the test strips beyond the expiration date

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