

## **Meat Speciation**

### **Cooked Pork Food Sampling Test**

**Product Code: PA-F31-10 (10 tests)**

**Product Code: PA-F31-25 (25 tests)**

### **Instructions For Use**

#### **Introduction**

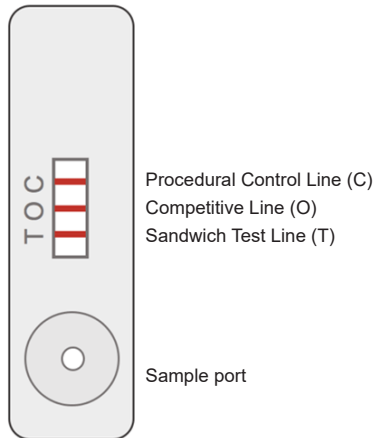
Contamination of meat with undesirable meat species can occur either unintentionally during food processing or as a consequence of intentional adulteration. Preventing this form of adulteration is important for regulatory, health, and ethnical/religious reasons. Accordingly, meat identification is routinely performed to assure consumers that the meat and poultry they purchase is unadulterated and properly labeled. The Cooked Pork Food Sampling Test was developed to reliably detect pork residues from cooked meat samples at 1% contamination levels in less than 35 minutes.

#### **Intended Use**

This kit is intended for sensitive and qualitative determination of cooked pork residues obtained from cooked meat samples. It is easily used for on-site testing. It does NOT detect raw pork residues.

## LFD Principle

The Cooked Pork Lateral Flow Device features highly specific and sensitive polyclonal antibodies directed against thermostable meat proteins configured in a sandwich format. The meat sample is first mixed with extraction solution in a filter bag, homogenized in a stomacher or similar device, extracted, diluted in a special diluent, then applied to the sample port on the LFD. The extract wicks across the reagent zone, enabling antibody-antigen interactions and visualization of the sandwich test line (**T**) result. To reduce the risk of false negative results, the reagent zone includes a procedural control line (**C**) and a competitive line (**O**), the latter giving an indication if the sample contains high levels of cooked pork contaminant.



## Performance Characteristics

**Limit of Detection:** 1% cooked pork

**Sample Preparation Time:** < 20 minutes

**Test Operation Time:** 15 minutes

**Cross-Reactivity:** Does **NOT** cross react with beef, goat meat, lamb meat, chicken meat, turkey meat, or horse meat.

## Kit Components

Component	PA-F31-10	PA-F31-25
Cooked Pork Lateral Flow Devices (LFDs)	10 pc	25 pc
Meat LFD Buffer	15 mL	32 mL
10X Meat Extraction Buffer Concentrate	15 mL	32 mL
Disposable Extraction Tubes	20 pc	50 pc

## Also Required (but not supplied)

Stomacher and 7 oz filter bags (Whirl-Pak B01385)

Scale or balance

Deionized water

Vortex

Pipettor and tips (p100 and p1000)

Timer

Calibrated Lateral Flow Device or Strip Reader (optional)

Microcentrifuge tubes or containers to dilute buffer concentrate

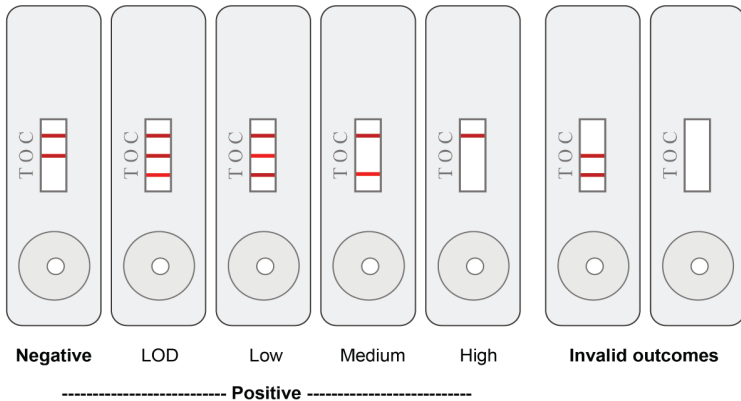
## Protocol

**Warning:** Before starting, bring the LFD components (buffers and LFD) to room temperature. **To prepare 1X Meat Extraction Buffer, dilute the 10X meat extraction buffer concentrate by mixing 15 mL with 135 mL of deionized water (for 10 tests) or 30 mL with 270 mL of deionized water (for 25 tests).**

1. Prepare the meat for analysis by dicing, grinding, chopping or blending, until a fine particle size is achieved and/or the sample appears to be homogenous.
2. Weigh 5 g of chopped meat and place on one side of the filter bag.
3. Add 10 mL of 1X Meat Extraction Buffer to the same side of the filter bag.
4. Homogenize sample for 2 minutes in a stomacher at high speed.
5. Let the homogenized sample stand at room temperature for 15 minutes to allow sample extraction.
6. Remove the extract from the opposite side of the filter bag with a pipette, massaging the extract through the filter until all the extract is removed.
7. Add 900  $\mu\text{L}$  of Meat LFD Buffer to a microcentrifuge tube.
8. To this tube, add 100  $\mu\text{L}$  of the extract and mix well by vigorously inverting the tube by hand for 15 seconds or using a vortex.
9. Place the LFD horizontally on a flat surface. Label with sample ID.
10. Add 100  $\mu\text{L}$  of the mixture to the sample port.
11. Allow the sample to wick across the membrane and wait 15 minutes for the test to complete.
12. At 15 minutes, read the results visually or with a calibrated strip reader.
13. Do not read the results after 20 minutes to avoid “false positive” artifacts that may develop as the lateral flow strip dries. For archiving purposes, the housing can be opened and the sample pad can be clipped off the lateral flow strip, reducing the probability of a late false positive test result.

## Interpretation of the Device

The reagent zone contains 3 distinct print lines that must be considered in a coordinated manner when interpreting the test lines. These lines include the Sandwich Test Line (**T**), the Competitive Test Line (**O**), and the Control Line (**C**).



The procedural Control Line (**C**) should be visible before proceeding to read the Sandwich Test Line (**T**) and the Competitive Line (**O**). Failure of the (**C**) line to appear denotes an invalid test, therefore the test needs to be repeated in its entirety.

The Sandwich Test Line (**T**) will become clearly visible at the LOD value defined for the kit and continue to strengthen in intensity with increasing target analyte concentration up to 10% where it will then start to fade and eventually disappear at high analyte levels.

To prevent misinterpreting the effects of excess cooked pork, the competitive line (**O**) has been incorporated. The (**O**) line will be intense if the sample is negative for the target analyte and fade with increasing amount of target analyte, disappearing completely at high analyte levels before the (**T**) Line does. This feature allows the operator to distinguish between samples with none or low levels of target analyte and those with high levels.

## Kit Storage and Stability

Store at 2-25°C (35-77°F). Do not freeze. The kit is stable until the expiration date indicated on the box if stored as indicated.

## Limitations of the Device

For all assays based on antibody platforms, there are certain conditions that can alter the extractability and accessibility of the target analyte. Some of these conditions include: excessive fat content, food additives, and acidic pH. In such instances, the test may not yield accurate results. Therefore, these factors must be considered in the interpretation of the results and validation should be performed in advance to verify suitability.

This test kit is limited to detection of cooked pork. It does NOT detect raw pork residues.

## Precautions

For laboratory use only, not intended for human diagnostic use. The test should be performed by trained personnel following Good Laboratory Practices and using personal protective equipment including gloves, lab coat, and safety glasses. Strict adherence to the assay protocol is mandatory to ensure proper operation of the test kit. Do not use expired reagents. Do not mix kit components with other kits or kit lot numbers. To limit contamination, do not reuse plastic components and avoid creating aerosols or aspirating when pipetting.

It is recommended to validate samples for use with this kit prior to testing actual samples. Questions regarding suitability of samples and strip readers recommended for use in recording test results should be addressed to customer support. SDS information can be obtained from your distributor or by emailing: [tech@microbiologique.com](mailto:tech@microbiologique.com).

## Customer Support

For additional information on using this test kit, please contact:

**1.888.998.4115 (USA & Canada)**  
**+ 1.206.522.5432- (International)**  
**Email: tech@microbiologique.com**

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