The pork market is increasingly concerned with the concept of quality of production. Consumers are demanding more control on the quality and safety of the meat they eat, and certification of the whole productive process "from the farm to the fork" may in a near future not only provide an added value for the final product but also become a must.

In this context, acute phase proteins (APP) appear as a new interesting parameter for the certification of meat production chains.

Pig-MAP is one of the main APP in pigs. Studies performed in the European Shared Cost Project QLK5-2001-02219 with participation of the major European experts on pig APP have demonstrated that this protein is an excellent marker not only of disease but also of distress situations affecting animal welfare and resulting in losses of performance. Implementing a program of Pig-MAP assay may help to optimise the productive process, resulting in benefits not only for consumers but also for producers.

Possible uses of Pig-MAP

- In research, in particular in the areas of pig diseases, immunity and animal welfare. Evaluation of the efficiency of vaccines or antibiotic treatments.
- In farms, for the evaluation of different production systems. Analysis of critical points.
- For the meat industry, as a tool to certify the health and welfare of herds, or the quality of transport.

To know more: selected bibliography

- Yamane et al., 2006. Increases in pig major acute-phase protein in wasting pigs brought to the abattoir. Journal of Veterinary Medical Science 68:511-3
- Pinheiro et al., 2007. Pig Acute-Phase Protein levels after stress induced by changes in the pattern of food administration. Animal 1:133-139.
**PigMAP® kit ELISA**

Sandwich ELISA for the quantification of Pig-MAP in serum or plasma samples

- With two monoclonal anti Pig-MAP antibodies
- Precise and accurate
- Working range 0.3-3.5 mg/mL
- Time of assay 1h 30 min
- Microtiter plates with 8 well separable strips

**Procedure**

a. Dilute samples and standards
b. Assay (room temperature)

1. Add sample
2. Incubate 30 min
3. Wash
1. Add conjugate
2. Incubate 30 min
3. Wash
1. Add chromogen
2. Incubate 30 min
3. Add stop solution
4. Read A450nm

**c. Calculate Pig-MAP concentration:**

- Plot A450nm of each standard versus Pig-MAP concentration.
- Obtain the calibration curve by linear regression
- Calculate Pig-MAP concentration in the samples by interpolation into the calibration curve

**Stick PigMAP®**

One-step Immunocromatographic test for the detection of abnormally elevated levels of Pig-MAP

- Easy and fast
- Results in 15 minutes
- No need of laboratory equipment
- Positive with Pig-MAP concentration above 1.5 mg/mL
- For serum or entire blood

**Procedure**

The sample is added to a solution containing the amount of antibodies necessary to block Pig-MAP, when its concentration is under the detection limit. Pig-MAP concentration above the detection limit can be detected by Immunocromatography, resulting in a pink line in the stick. The stick also contains a blue control line.

- Original strip
- Chromatography begins

Negative Pig-MAP sample:
- Only blue colloids are captured

Positive Pig-MAP sample:
- Red and blue colloids are captured