



Dynamic Test Kits for R&D  
and Quality Control

## QUALISPEED<sup>®</sup> BOV TEST

ELISA TEST FOR THE QUALITATIVE DETECTION  
OF COW MILK  
POSSIBLY TO SUPPLIES OF GOATS OR EWES  
MILK AND CHEESE SAMPLES

### Instructions for Use

Product code: 250301

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## COMPONENTS

The QualiSpeed® BOV Test kit to the detection of cow milk adulterating ewe and goat milk or cheese is composed of:

- **8 coated wells** with a serum specifically recognizing cow milk
  - 1 well is used for the negative control
  - 1 well is used for the positive control
- **1 Tracer vial** (conjugated enzymatic freeze-dried, to reconstitute with 1mL of distilled water): stability at +4°C until the expiration of the kit (28 days at +4°C after reconstitution)
- **1 Ellman vial** (to reconstitute with 2mL of distilled water): stability at +4°C until the expiration of the kit (4 days in aluminium packing at +4°C after reconstitution)
- **1 positive control** (ready to use): Stability 6 months at +4°C
- **1 negative control** (ready to use): Stability 6 months at +4°C

**Remark:** All reagents and samples must be brought at room temperature before analyse to obtain a result with an optimized reading.

## PRINCIPLE

The QualiSpeed® BOV Test is an ELISA rapid test based on an immunological competitive reaction for a qualitative detection, absence or presence, of adulterant milk in milk and cheese samples.

Samples (positive control, negative control and samples) are deposited in wells already coated with antibodies and put in competition with “Tracer” reagent.

In case of absence of adulteration in the milk sample, only the Tracer is fixed at the bottom of the well and then revealed by a yellow colouring during the addition of the Ellman reagent.

## I. SAMPLES PREPARATION

### A. MILK

No specific treatment is necessary to analyse milk samples

### B. CHEESE

- Weigh precisely 2g of cheese
- Add 2mL of water at roughly pH 4 (water acidified with acetic acid)

- Add 4mL of chloroform
- Homogenize using a homogenizer (of the ULTRA-TURRAX type for instance)  
*(This phase may be changed by leaving the broken-by-hand cheese with the chloroform and the acidified water for 24 hours at room temperature)*
- Centrifuge 3000 rpm for 10 minutes
- Draw the aqueous phase (the clear top layer)

## II. OPERATING METHOD

- Take out of the refrigerator the adequate number of well (1 well per control and per sample)
- Reconstitute the reagents (Tracer and ELLMAN as indicated on the vials)
- Wash wells 3 times with 300µL of water. Eliminate the water in the last rinsing by shaking strongly
- Deposit one drop (50µL) by well of the positive control, the negative control and every sample to be tested (milk or cheese)
- Deposit 2 drops (100µL) of reagent Tracer in all the wells
- Make a soft homogenization of wells by applying a circular movement of the plate
- Wait for 5 minutes. Empty the contents of wells.
- Wash wells 3 times with 300µL of water. Eliminate the water in the last rinsing by shaking strongly
- Deposit 4 drops (200µL) of ELLMAN reagent in all the wells
- Milk samples: Incubate between 5 and 10 minutes at room temperature *(An upper time allows an easier reading)*
- Cheese samples: Incubate between 20 and 30 minutes at room temperature

## III. READING AND INTERPRETATION OF RESULTS

**Positive control (presence of cow's milk) = no colouring**

**Negative control (pure milk of goat or ewe) = yellow colouring**

Colour of wells	Adulteration
No colouring	Content in cow's milk included between 0,5 % and 100 %
Yellow colouring – Low Intensity	Content in cow's milk included between 0,2 % and 0,5 %
Yellow colouring – High Intensity	Content in cow's milk < 0,2 % ( pure sample)