

(Latex for identification of thermophilic *Campylobacter*)

DEFINITION

Campylobacter Confirm Latex kit is a rapid agglutination test for the confirmation of thermophilic *Campylobacter* from colonies isolated on agar medium.

It is the confirmation test of RAPID' *Campylobacter* method.

PRINCIPLE

Latex particles are coated with polyvalent rabbit antisera raised against a wide range of *Campylobacter* antigens.

When mixed with a suspension of *Campylobacter* organisms, the latex particles rapidly agglutinate to form visible clumps.

PRESENTATION

Campylobacter Confirm Latex kit

1 pack of 50 tests,

code 356-4297

- 1 bottle of latex reagent 2.5 ml (Blue cap)
- 1 bottle of control latex reagent 2.5 ml (Yellow cap)
- 1 bottle of positive control 2.5 ml (Black cap)
- 1 bottle of sample diluent 5 ml (white cap)
- Disposable agglutination slides and disposable mixing sticks

STORAGE AND SHELF LIFE

- Reagents: + 2 - 8°C.
- Once opened, all reagents are stable until the expiry dates indicated on the label in absence of microbial contamination.
- Should not be frozen.

OTHER REQUIRED PRODUCT(S)

(NOT SUPPLIED)

(Non exhaustive list)

- Loop for collection of bacterial colonies.
- Timer.
- Disinfectant tank or autoclave bag for disposal of used slides and sticks.
- All usual laboratory equipment.

PROTOCOLE

Campylobacter Confirm Latex kit can be used to screen presumptive thermophilic *Campylobacter* colonies isolated on selective or non-selective agar plates.

NB: in case only one colony is characteristic on selective agar plate, a subculture on a non-selective agar is required.

Agglutination reaction

- Bring the latex reagent to room temperature.
- Thoroughly homogenize the latex reagent by gently inverting.
- Dispense one drop of sample diluent into a circle of a disposable agglutination slide.
- Using an inoculating loop, remove a colony from the agar plate, and mix the bacteria into the drop of sample diluent.
- Dispense one drop of latex reagent into the bacterial suspension.
- Mix the latex reagent and the bacterial suspension with a clean mixing stick, and rock the slide for 2 to 3 minutes.

- Observe for agglutination.

Interpretation of results

Positive reaction

An agglutination reaction is indicated by visible aggregation of the latex particles. The strength of the reaction may vary (fine to heavy clumping of particles).

Negative reaction

The suspension remains smooth.

PRECAUTIONS

• The following check with the latex reagent should be regularly performed to confirm that the reagents are functioning correctly:

- The latex reagent must be smooth, and without aggregation of the latex particles.
- A single drop of positive control should be dispensed on to two adjacent areas on the test slide.
- Add one drop of the latex reagent into the first circle, and one drop of the control latex reagent into the second circle.
- Mix the latex reagent and control latex reagent with a clean mixing stick and rock the slide for 2 minutes.

Deterioration of a reagent should be suspected if:

- There is no reaction between the test latex reagent and the positive control or the reaction shows a significant loss of strength with time.
- The control latex reagent reacts with the positive control

- Respect the Good Laboratory Practice (Eg. EN ISO 7218)
- Use the mixing stick and slides supplied in the kit.
- Mixing stick and slides are for single use.
- Discard all disposable material used in an autoclavable waste bin or disinfectant bath.
- Sodium azide, which is used as a preservative in the kit reagents can react with lead or copper plumbing to form potentially explosive metal azides. Dispose by flushing with a large volume of water to prevent azide build-up.
- Sodium azide, which is used as a preservative in the kit reagents can react with lead or copper plumbing to form potentially explosive metal azides. Dispose by flushing with a large volume of water to prevent azide build-up.
- Agglutination will be atypical if it is:
 - slow to develop (up to 2 minutes)
 - weak (1+ after 2 minutes)
 - atypical in appearance (mucoïde / curd) rather than the normal particulate agglutination with poor background clearing, grainy, homogeneous and dense

LIMITES OF USE

• Very low numbers of *Campylobacter* may result in a negative test result. 48-hour cultures should be used to maximise growth of the bacteria.

QUALITY CONTROL OF MANUFACTURER

Every product manufactured and marketed by Bio-Rad is subject to a procedure of quality assurance at all stages, from reception of raw materials through to commercialization of the

end-product. Each batch of finished products undergoes quality control and is commercialized only if it satisfies the criteria of acceptability.