

RPF Supplement ISO

Cat. 6024

For the selective isolation of coagulase-positive staphylococci.

Practical information

Applications	Categories
Selective isolation	Coagulase-positive staphylococcus

Industry: Clinical / Food



Principles and uses

Bair Parker Agar is used for the isolation and enumeration of coagulase-positive staphylococci in food and other materials.

The ISO 6888-2 Standard recommends the addition of Rabbit Plasma Fibrinogen (RPF) Supplement (Cat. 6024) to Baird-Parker Agar Base (cat. 1100), to make Rabbit Plasma Fibrinogen (RPF) Agar used for food (such as cheese made from raw milk and certain raw meat products) that may be contaminated with: Staphylococcus forming non-characteristic colonies in Baird Parker Agar or with base flora that can mask the colonies sought. This medium should be used immediately after preparation.

In Rabbit Plasma Fibrinogen Agar, staphylococcus colonies are small, black or gray, even white, surrounded by a halo of precipitation indicating the coagulase activity. At the start of incubation, Proteus colonies can present similar physical characteristics to coagulase-positive Staphylococcus aureus colonies. However, after 24 or 48 hours of incubation, they can acquire a brown color that expands and invades the plate, and which allows them to be distinguished from staphylococcus.

Formula per vial

Rabbit plasma (ml)	2,5	Trypsin (mg)	2,5
Potassium tellurite (mg)	2,5	Bovine fibrinogen (g)	0,38

Typical formula g/L * Adjusted and/or supplemented as required to meet performance criteria.

Preparation

Reconstitute one vial of the RPF Supplement ISO (Cat. 6024) with 10 ml of sterile distilled water (preheated to 37 °C) and add aseptically to 90 ml of Baird Parker Agar Base (Cat. 1100) autoclaved and cooled to 45-50 °C. Homogenize gently and dispense into Petri dishes.

Instructions for use

» For clinical diagnosis, the type of sample is any clinical sample

- The plates should be dry before inoculation (the drying can be done by incubating at 35±2 °C for approximately 10 minutes before use).
- Prepare the sample in an adequate solution, dilute it and place from 0,1 ml to 1,0 ml of the appropriate dilution in the plates.
- Spread the inoculum over the entire surface.
- Incubate at 35±2 °C for 24-48 hours

» For other uses not covered by the CE marking:

Enumeration of coagulase-positive staphylococci by the technique using Rabbit Plasma Fibrinogen Agar:

- Inoculate 1 ml of the liquid sample or 1 ml of the initial suspension by the pour plate method. Inoculate also the first decimal dilution.
- Incubate the plates at a temperature of 35 37 °C for 18-24 hours. If needed reincubate for a further 18-24 hours at the same temperature.
- Count the characteristic colonies.

Quality control

Solubility	Appearance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25°C)
w/o rests	Liophilized tablet	N/A	Colourless to pale pink, slightly opalescent	N/A

Microbiological test

According to ISO 11133:

Incubation conditions: Productivity, Specificity (24±2-48±2 h / 37±1°C) / Selectivity (48±2 h / 37±1 °C).

Inoculation conditions: Productivity quantitative (100±20. Min.50 cfu) / Selectivity (10⁴-10⁶ cfu) / Specificity (10³-10⁴ cfu).

Reference media: TSA.

Microorganisms	Specification	Characteristic reaction
Staphylococcus epidermidis ATCC 12228	Growth	Black o grey colonies without opacity halo
Staphylococcus saprophyticus ATCC 15305	Growth	Black o grey colonies without opacity halo
Escherichia coli ATCC 25922	Total inhibition	
Staphylococcus aureus ATCC 25923	Good growth, >50%	Black o grey colonies with opacity halo
Staphylococcus aureus ATCC 6538	Good growth, >50%	Black o grey colonies with opacity halo

Storage

Temp. Min.:2 °C

Temp. Max.:8 °C

Bibliography

Baird Parker, A.C. (1962). An improved diagnostic and selective medium for isolating coagulase-positive staphylococci. J. Appl. Bact. 25 (1): 12-19.

Beckers N.J. et al (1984). Cannad J. microbiol. 30: 470-474.

ISO 6888-2. Enumeration of Staphylococcus aureus using RPF medium.

ISO 6888-1. Microbiology of food and animal feeding stuffs -- Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species) -- Part 1: Technique using Baird-Parker agar medium