

Contact Slide 3

PCA + TTC + Neutralizing / Vogel Johnson Agar

Flex Dip-slide with a selective medium for detection of pathogenic staphylococci and a non selective medium for total bacterial count.

DESCRIPTION

Contact Slide 3 is a ready-to-use device with two different media coated onto a plastic support used for the microbial monitoring of surfaces and liquids even in the presence of residues of disinfectants.

The selective medium allows the isolation and enumeration of coagulase-positive, mannitol-utilizing staphylococci. The other medium is used for enumeration of bacteria.

TYPICAL FORMULA

PCA + TTC + Neutralizing Side 1	(g/l)	Vogel Johnson Agar Side 2	(g/l)
Enzymatic Digest of Casein	5.0	Enzymatic Digest of Casein	10.0
Yeast Extract	2.5	Yeast Extract	5.0
Glucose	1.0	Dipotassium Hydrogen Phosphate	5.0
Triphenyl Tetrazolium Chloride	0.1	D-Mannitol	10.0
Neutralizing	*	Lithium Chloride	5.0
Agar	15.0	Glycine	10.0
Final pH 7.0 ± 0.2		Phenol Red	0.025
		Potassium Tellurite	0.2
		Agar	15.0
		Final pH 7.2 ± 0.2	

*Histidine, 1.0 Lecithin, 0.7 Tween 80, 5.0 Sodium Thiosulfate, 0.5

METHOD PRINCIPLE

PCA + TTC + Neutralizing contains triphenyltetrazolium chloride as growth indicator forming a red insoluble compound which may easily observed.

Vogel Johnson Agar includes tellurite, lithium chloride and a high glycine concentration which are inhibitory for most bacteria other than staphylococci. Phenol red is the pH indicator incorporated to show acid production. Some organisms, such as *Staphylococcus aureus*, reduce tellurite to metallic tellurium resulting in growth as black colonies.

TEST PROCEDURE

1. Take a slide from the refrigerator and leave it at ambient temperature for about 5 minutes
2. Unscrew and extract the slide from its cylindrical container. Avoid any contact with the agar surface.
3. For surfaces monitoring, flex the cap forming a 90° angle and press each side of the slide firmly against the surface to be examined for 10 seconds. Alternatively, use a swab for sampling the area, afterwards roll the swab gently over the agar surface.
For examination of liquids, hold the slide by the cap and immerse it completely into the test fluid.
4. Reinsert the slide into its tube, screw it tight and incubate at 35 ± 2°C for 24 h. Record the count on Vogel Johnson Agar prior to continue incubation at 30 ± 1°C for other 48 h.

RESULTS INTERPRETATION

Count the total number of colonies on PCA + TTC + Neutralizing (**Side 1**) to obtain the total bacterial count.

Organisms that grow as black colonies surrounded by a yellow zone on Vogel Johnson Agar (**Side 2**) may be presumed to be *Staphylococcus aureus*. Prolonged incubation may result in the growth of black coagulase-negative colonies and if these organisms also ferment mannitol they may be falsely identified from their appearance as *S. aureus*. In these circumstances further tests are necessary for final identification.

APPEARANCE

Side 1. Slightly opalescent, light amber.

Side 2. Slightly opalescent, red.

STORAGE CONDITIONS

10-25°C away from light, until the expiry date on the label. Eliminate if signs of deterioration or contamination are evident.

SHELF LIFE

6 months

QUALITY CONTROL

Slides are inoculated with the microbial strains indicated in the QC table.

Inoculum for productivity: 50-100 CFU.

Inoculum for selectivity: 10⁴-10⁶ CFU.

Incubation conditions: 35 ± 2°C for 24-72 hours.

QC Table.

Microorganism		Growth on Side 1	Growth on Side 2
<i>Escherichia coli</i>	ATCC® 25922	Good, red colonies	Inhibited
<i>Staphylococcus aureus</i>	ATCC® 25923	Good, red colonies	Good, black colonies with yellow zones
<i>Enterococcus faecalis</i>	ATCC® 29212	Good, red colonies	Inhibited
<i>Staphylococcus epidermidis</i>	ATCC® 12228	Good, red colonies	Poor to fair, translucent of even black colonies without a yellow zone

WARNING AND PRECAUTIONS

The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous. It is nevertheless recommended to consult the safety data sheet for its correct use. The product must be used by properly trained operators only.

DISPOSAL OF WASTE

Disposal of waste must be carried out according to national and local regulation in force.

BIBLIOGRAPHY

- ISO 18593:2004. Microbiology of food and animal feeding stuffs- Horizontal method for sampling techniques from surfaces using contact plates and swabs.
- ISO 4833:2003. Microbiology of food and animal feeding stuffs – Horizontal method for the enumeration of microorganisms – Colony count technique at 30°C.
- Marshall R.T. ed. (1993). Standard methods for the examination of dairy products, 16th ed. American Public Health Association, Washington, D.C.
- Vogel R.A. and Johnson M. (1960) A modification of the tellurite-glycine medium for the use in the identification of *Staphylococcus aureus*. Publ. Hlth. Lab., 18; 131-133.
- Zebovitz E., Evans J.B. and Niven C.F. (1955) Tellurite-glycine agar, a selective plating medium for the quantitative detection of coagulase positive staphylococci. J. Bact., 70; 686-690.

PRESENTATION	Packaging	Ref.
Contact Slide 3	20 slides	525302
Contact Slide 3	120 slides	53530

TABLE OF SYMBOLS

LOT Batch code	 Keep away from sunlight	 Manufacturer	 Use by	 Fragile, handle with care
REF Catalogue number	 Temperature limitation	 Contains sufficient for <n> tests	 Caution, consult Instruction For Use	 Do not reuse