



Ready Prepared Media

Technical Information

Tryptone Soya Serum Bacitracin Vancomycin Agar (TSBV) Plate

Product Code: PM 2948

Application: Recommended for isolation and presumptive identification of *Actinobacillus actinomycetemcomitans*

Composition**

Ingredients	Gms / Litre
Tryptone	15.000
Soya Peptone	5.000
Sodium chloride	5.000
Yeast extract	1.000
Agar	15.000
TSBV Supplement (MS2323)	1 Vial
Bacitracin	75.000mg
Vancomycin	5.000mg
Horse Serum (BA3239)	100.000ml
Final pH (at 25°C)	7.1±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Tryptone Soya Serum Bacitracin Vancomycin Agar is enriched media recommended for the selective isolation and identification of *Actinobacillus actinomycetemcomitans* by J.Slots(5). TSBV agar are used in oral microbiological studies.(3). The detection rate for *A.actinomycetemcomitans* in the adult group is 67% with severe periodontitis, it suggests that this bacterium is important not only in localized juvenile peri-odontitis but also in periodontitis in adults (4).

Tryptone and Soya peptone provide amino acids and other complex nitrogenous substances. Dextrose is the energy source. Dipotassium hydrogen phosphate buffers the medium. Yeast extract is the rich source of vitamin B complex. The medium is enriched with Horse serum for the good growth of *A.actinomycetemcomitans*. Bacitracin and Vancomycin inhibits most gram-positive and gram-negative anaerobes.

Type of specimen

Clinical samples - Tooth sample or gum tissue sample

Specimen Collection and Handling

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (1,2).

After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions

In Vitro diagnostic Use only. Read the label before opening the pack. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines maybe referred in individual safety data sheets .



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Limitations

1. Individual organisms differ in their growth requirement and may show variable growth patterns on the medium .
2. Each lot of the medium has been tested for the organisms specified on the COA. It is recommended to users to validate the medium for any specific microorganism other than mentioned in the COA based on the user's unique requirement.
3. Further biochemical and serological tests must be carried out for further identification.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Methodology

Either streak, inoculate or surface spread the test inoculum (50-100 CFU) aseptically on the plate. Caution: Some pathogenic fungi may produce infective spores which are easily dispersed in air, so examination should be carried out in safety cabinet.

Quality Control

Appearance

Sterile Tryptone Soya Serum Bacitracin Vancomycin Agar in 90mm disposable plate.

Colour

Light yellow coloured medium

Quantity

25 ml of medium in 90mm disposable plate

pH

6.90-7.30

Sterility Check

Passes release criteria

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C under 5% CO₂ for 24-48 hours

Organism	Inoculum(CFU)	Growth	Recovery
<i>Actinobacillus actinomycetemcomitans</i>	50-100	good-luxuriant	>=50%
<i>Fusobacterium nucleatum</i>	50-100	good-luxuriant	>=50%
<i>Enterococcus faecalis</i> ATCC 29212 (00087*)	>=10 ⁴	inhibited	
<i>Clostridium difficile</i> ATCC11204	>=10 ⁴	inhibited	

Key : (*) - Corresponding WDCM numbers

Storage and Shelf Life

- On receipt store between 2-8°C Use before expiry date on the label.
- Product performance is best if used within stated expiry period.



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Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with sample must be decontaminated and disposed of in accordance with current laboratory techniques (1,2).

Further Reading

1. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
2. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
3. Mandell, R.L. 1984. A longitudinal microbiological investigation of *Actinobacillus actinomycetemcomitans* and *Eikenella corrodens* in juvenile periodontitis. *Infect. Immun.* 45:778-780.
4. Slots, J., H.S. Reynolds, and R. J. Genco. 1980. *Actinobacillus actinomycetemcomitans* in human periodontal disease: a cross-sectional microbiological investigation. *Infect. Immun.* 29:1013-1020.
5. Slots, J. "Selective medium for isolation of *Actinobacillus actinomycetemcomitans*." *J Clin Microbiol* 1982;15: 606-609.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conform solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate
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