

UPUTSTVO ZA UPOTREBU (SRB)

Slanetz & Bartley Agar Plate

Medijum se preporučuje za detekciju i brojanje fekalnih *Streptococcus* vrsta tehnikom membranske filtracije.

Sadržaj pakovanja:

Šifra artikla (pakovanja)	Opis	Šifra primarnog pakovanja:	Broj podloga
PRM612IV20	Podloga izlivena u petri posudama od ø90	PRM612I	20
PRM612IV60			60
PRM612IV240			240
PRM612IM40	Podloga izlivena u petri posudama od ø50		40

Uputstva

Pod aseptičnim uslovima inokulisati ploču metodom površinskog zasejavanja. Nakon inkubacije posmatrati rast i boju kolonija.

Princip i interpretacija

Slanetz i Bartley medijum su prvobitno formulisali Slanetz i Bartley (1) za detekciju i brojanje *Enterococcus* vrsta tehnikom membranske filtracije. Takođe se može koristiti i prilikom korišćenja tehnike direktne inokulacije (2,3). Sastav ove formulacije je prema specifikacijama ISO (4), APHA (5). Triptoza i ekstrakt kvasca služe kao izvor esencijalnih hranljivih materija zajedno sa vitaminima B-kompleksa i azotnim hranljivim jedinjenjima. Podloga je visoko selektivna za *Enterococcus spp.* Natrijum azid ima inhibitoran efekat na Gram-negativne bakterije. Trifenil tetrazolijum hlorid se redukuje do nerastvornog formazana unutar bakterijske ćelije dajući tamno crveno obojene kolonije. Kada se inkubira na višim temperaturama (44-45°C), za sve crvene ili kestenjaste kolonije može se pretpostaviti da su *Enterococcus spp.* (6, 7).
Department of Health (8) preporučio je ovu podlogu za brojanje *Enterococcus* vrsta u vodi. Voda se filtrira kroz membranske filtere koji se potom stavljaju na površinu ove podloge i inkubiraju na 35°C 4h, a zatim na 44-45°C, 44-48h. Kolonije crvene ili kestenjaste boje broje se kao *Enterococcus*. Preliminarna inkubacija na 35°C potpomaže oporavak oštećenih mikroorganizama. TTC ne redukuje sve vrste, tako da se i blede kolonije takođe moraju uzeti u obzir.
Uzorci hrane se homogenizuju i razblažuju fiziološkim rastvorom tako da daju 15-150 kolonija na svakoj Petri posudi. Homogenizati ili razblaženja se nanose na površinu agara i inkubiraju na 35°C, 48h. Broje se ružičaste ili tamno crvene kolonije sa kestenjasto-beličastim ivicama (9).

Kontrola kvaliteta

Podaci i rezultati kontrole kvaliteta dati su u sertifikatu analize za svaku seriju.

Skladištenje i rok upotrebe

Čuvati između 2-8°C. Upotrebiti pre isteka datuma označenog na nalepnici.

Mere predostrožnosti


Ovaj proizvod ne sadrži hazardne supstance u koncentracijama koje su iznad propisanih limita određenih važećim zakonskim regulativama i zato nije klasifikovan kao opasan. Ipak, preporučeno je slediti smernice iz bezbednosnog lista za pravilnu upotrebu. Ovaj proizvod je namenjen isključivo za upotrebu u laboratorijskim uslovima, od strane profesionalno obučene osobe.

Proizvod ne upotrebljavati ukoliko je primarno pakovanje oštećeno ili proizvod ne odgovara navedenim karakteristikama.

Odlaganje otpada

Odlaganje otpada mora biti u skladu sa nacionalnim i lokalnim regulativama koje su na snazi. Svaka laboratorija je odgovorna za rukovanje i odlaganje otpada koji nastaje u toku rada.

Upotrebljeni simboli

	Držati uspravno		Kataloški broj
	Ne izlagati direktno sunčevim zracima		Lot broj
	Konsultovati uputstvo za upotrebu		Rok upotebe
	Ne koristiti više puta		Temperatura čuvanja
	Veličina pakovanja		Proizvođač

Literatura

- Slanetz L. W. and Bartley C.H., 1957, J. Bact., 74:591.
- Burkwall M.K. and Hartman P.A., 1964, Appl. Microbiol., 12:18.
- Nordic Committee on Food Analysis, 1968, Leaflet 68.
- ISO 7899-2:2000, Water Quality - Detection and enumeration of intestinal enterococci - Part 2 :Membrane filtration method.
- Salfinger Y., and Tortorello M.L., 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.
- Mead G.C., 1966, Proc. Soc.Wat. Treat. Exam., 15:207.
- Taylor E.W. and Burman N.P., 1964, J. Appl. Bact., 27:294.
- Department of Health and Social Security, 1982, Report 71, HMSO, London.
- Baird R.B., Eaton A.D., and Rice E.W., (Eds.), 2015, Standard Methods for the Examination of Water and Wastewater, 23rd ed., APHA, Washington, D.C.
- Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.
- 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.

INSTRUCTION FOR USE

(EN)

Slanetz & Bartley Agar Plate

Medium is recommended for detection and enumeration of fecal *Streptococcus* spp. from samples by membrane filtration technique.

Package contents:

Item code (packaging) REF	Description	Primary packaging code:	Number of products
PRM612IV20	Substrate poured into petri dishes of ø90	PRM612I	20
PRM612IV60			60
PRM612IV240			240
PRM612IM40	Substrate poured into petri dishes of ø50		40

Directions

Surface spread the test inoculum aseptically on the plate. After incubation, observe growth and color of colonies.

Principle And Interpretation

Slanetz and Bartley Medium was originally devised by Slanetz and Bartley (1) for the detection and enumeration of *Enterococcus* spp by membrane filtration technique. It can be also used as a direct plating medium (2, 3). This medium composition is as per specifications laid in ISO (4), APHA (5). Tryptose and yeast extract serves as a source of essential nutrients along with B-complex vitamins and nitrogenous nutrients. The medium is highly selective for *Enterococci*. Sodium azide has inhibitory effect on Gram-negative microorganisms. Triphenyl Tetrazolium Chloride is reduced to the insoluble formazan inside the bacterial cell forming dark red-coloured colonies. When the medium is incubated at higher temperature (44-45°C) all red or maroon colonies can be considered as presumptive *Enterococci* (6, 7).

The Department of Health (8) has recommended this medium to be used for enumeration of *Enterococci* in water supplies. Water is filtered through a membrane filter which is then placed on the surface of the Slanetz & Bartley Agar Plates and incubated at 35°C for 4 hours and then at 44-45°C for 44-48 hours. Red or maroon colonies are counted as *Enterococcus*. The preliminary incubation at 35°C helps for the recovery of stressed microorganisms. Not all the species reduce TTC so pale colonies also should be considered.

Food samples are homogenized and diluted with physiological saline to give 15-150 colonies on each petri plate. Homogenates or dilutions are spread on agar surface and incubated at 35°C for 48 hours. Pink or dark red colonies with a narrow whitish border are counted (9).

Quality control

The data and results of quality control are given in the certificate of analysis for each lot.

Storage and shelf life

Storage between 2-8°C. Use before expiry date on the label.

Warning and precautions











This product does not contain hazardous substances in concentrations that are above the prescribed limits set by applicable legislation and are therefore is not classified as hazardous. However, it is recommended to follow the guidelines provided in the safety data sheet for proper use. This product is intended for laboratory use only by a professionally trained person.

Do not use the product if the primary packaging is damaged or the product does not meet the stated characteristics.

Disposal

Waste disposal must be in accordance with national and local regulations. Each laboratory is responsible for handling and disposing of waste generated during operation.

Symbols used on labels

	This side up		Catalogue number
	Do not expose directly to sunlight		Batch code
	Consult instructions for use		Use-by date
	Do not re-use		Temperature limit
	Pack size		Manufacturer

Reference

- Slanetz L. W. and Bartley C.H., 1957, J. Bact., 74:591.
- Burkwall M.K. and Hartman P.A., 1964, Appl. Microbiol., 12:18.
- Nordic Committee on Food Analysis, 1968, Leaflet 68.
- ISO 7899-2:2000, Water Quality - Detection and enumeration of intestinal enterococci - Part 2 :Membrane filtration method.
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- Mead G.C., 1966, Proc. Soc.Wat. Treat. Exam., 15:207.
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- Department of Health and Social Security, 1982, Report 71, HMSO, London.
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