

## UPUTSTVO ZA UPOTREBU

(SRB)

### Endo Agar Plate

Selektivna podloga koja se preporučuje za potvrdu prisustva koliformnih bakterija.

### Sadržaj pakovanja:

| Šifra artikla (pakovanja) REF | Opis                                     | Šifra primarnog pakovanja: | Broj podloga |
|-------------------------------|--|----------------------------|--------------|
| PRM029V20                     | Podloga izlivena u petri posudama od Ø90 | PRM029                     | 20           |
| PRM029V60                     |  |                            | 60           |
| PRM029V240                    |  |                            | 240          |
| PRM029M40                     | Podloga izlivena u petri posudama od Ø50 |                            | 40           |

### Uputstva

Pod aseptičnim uslovima inkubacije u 37°C postaviti 0,1 ml sastava na ploču metodom površinskog zasejavanja. Nakon inkubacije posmatrati rast i boju kolonija.

### Princip i interpretacija

Endo agar je razvio Endo radi diferenciranja Gram-negativnih bakterija na osnovu sposobnosti fermentacije laktosa uz inhibiciju rasta Gram-pozitivnih bakterija (1). Inhibicija rasta Gram-pozitivnih bakterija postignuta je isključivanjem žučnih soli kao sastojka podloge, a koje su tradicionalno korišćene. Endo je uspešno inhibirao rast Gram-pozitivnih bakterija na ovoj podlozi inkorporacijom natrijum sulfita i baznog fuksina u njen sastav. Nastali Endo agar, takođe poznat i kao Fuksin sulfitni i Infuzioni agar, ja korišten za izolovanja tifoidnih bacila. Tokom godina izvršene su mnoge modifikacije ove podloge.

Endo Agar je preporučen od strane APHA kao značajna podloga za mikrobiološko ispitivanje vode i otpadnih voda, mlečnih proizvoda i hrane (2-4). Endo agar se koristi za potvrdu prisustva i određivanje broja koliformnih bakterija nakon preliminarnog testiranja piјачe vode. Takođe se koristi za detekciju i izolovanje koliforma i fekalnih koliforma iz mleka, mlečnih proizvoda i hrane.

Podloga sadrži peptinski hidrolizat životinjskog tkiva koji je izvor azota, ugljenika, vitamina i minerala potrebnih za rast bakterija. Natrijum sulfit i bazni fuksin čine ovu podlogu selektivnom suzbijanjem rasta Gram-pozitivnih bakterija. Koliformi na podlozi daju ružičaste kolonije usled fermentacije laktosa, dok bakterije koje ne fermentuju laktosu daju bezbojne kolonije.

U slučaju *Escherichia coli* ova reakcija je, usled kristalizacije fuksina, veoma izražena i dobijaju se kolonije postojanog, zelenkasto-metalnog sjaja (fuksin sjaj). Podlogu treba čuvati zaštićen od svetlosti da bi se izbegla foto-oksidacija.

### 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

|  |  |  |                     |
|--|--|--|---------------------|
|  | Evropski znak usaglašenosti                |  | Držati uspravno     |
|  | In vitro dijagnostičko medicinsko sredstvo |  | Kataloški broj      |
|  | Ne izlagati direktno sunčevim zracima      |  | Lot broj            |
|  | Konsultovati uputstvo za upotrebu          |  | Rok upotebe         |
|  | Ne koristiti više puta                     |  | Temperatura čuvanja |
|  | Veličina pakovanja                         |  | Proizvođač          |
|  | Ovlašćeni predstavnik u Evropskoj uniji    |  |                     |

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|  | Salus Cons kft. 6722 Szeged, Bécsi krt 23, HUNGARY<br>e-mail: office@saluscons.com |
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### Literatura

1. Endo S., 1904, Zentralbl. Bakteriol., Abt. 1, Orig.35:109-110.
2. Eaton A. D., Clesceri L. S., Rice E. W. and Greenberg A. W., (Eds.), 2005, Standard Methods for the Examination of Water and Wastewater, 21st Ed., APHA, Washington, D.C.
3. Downes F. P. and Ito K.,(Eds.), 2001, Compendium of Methods for the Microbiological Examination of foods, 4th Ed., American Public Health Association, Washington, D.C.
4. Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed., APHA Inc., Washington, D.C.

Broj rešenja o registraciji: 515-02-02534-22-003

## INSTRUCTION FOR USE

(EN)

### Endo Agar Plate

Medium is a selective medium recommended for confirmation of the presumptive test for members of the coliform group.

### Package contents:

| Item code<br>(packaging) REF | Description                               | Primary<br>packaging<br>code: | Number of<br>products |
|------------------------------|---|-------------------------------|-----------------------|
| PRM029V20                    | Substrate poured into petri dishes of Ø90 | PRM029                        | 20                    |
| PRM029V60                    |   |                               | 60                    |
| PRM029V240                   |   |                               | 240                   |
| PRM029M40                    |   |                               | 40                    |

### Directions

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

### Principle and interpretation

Endo Agar was developed by Endo to differentiate Gram-negative bacteria on the basis of lactose fermentation, while inhibiting Gram-positive bacteria (1). Inhibition of the later was achieved without the use of bile salts as was traditionally used. Endo was successful in inhibiting Gram-positive bacteria on his medium by the incorporation of sodium sulphite and basic fuchsin. The resulting Endo Agar, also known as Fuchsin Sulphite and Infusion Agar, was used to isolate the typhoid bacilli. Many modifications of this media have been done over the years. Endo Agar is recommended by APHA as an important medium in the microbiological examination of water and wastewater, dairy products and foods (2-4). Endo Agar is used to confirm the detection and enumeration of coliform bacteria following presumptive test of drinking water. It is also used for the detection and isolation of coliforms and fecal coliforms from milk, dairy products and food.

The medium contains peptic digest of animal tissue which provide nitrogen, carbon, vitamins and minerals required for bacterial growth. Sodium sulphite and basic fuchsin make this medium selective by suppressing Gram-positive organisms. Coliforms produce pink colonies on fermentation of lactose while lactose non-fermenters produce colourless colonies on the medium. With Escherichia coli, this reaction is very pronounced as the fuchsin crystallizes, exhibiting a permanent greenish metallic luster (fuchsin luster) to the colonies. Medium should be stored away from light to avoid photo-oxidation.

### 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

In vitro diagnostic use only. Read the label before opening the container. 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 may be referred in individual safety data sheets.

### 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 clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques.

### Symbols used on labels

|  |  |  |                   |
|--|--|--|-------------------|
|  | European Conformity mark                                       |  | This side up      |
|  | is an in vitro diagnostic medical device (IVD)                 |  | 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      |
|  | European Authorized Representative (Authorised Representative) |  |                   |

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