

## UPUTSTVO ZA UPOTREBU

(SRB)

### Dermatophyte Test Medium (D.T.M.) Agar Plate

Podloga za selektivnu izolaciju dermatofita.

#### Sadržaj pakovanja:

| Šifra artikla (pakovanja) REF | Opis                                     | Šifra primarnog pakovanja: | Broj podloga |
|-------------------------------|--|----------------------------|--------------|
| PRM188V20                     | Podloga izlivena u petri posudama od ø90 | PRM188                     | 20           |
| PRM188V60                     |  |                            | 60           |
| PRM188V240                    |  |                            | 240          |
| PRM188M40                     | Podloga izlivena u petri posudama od ø50 |                            | 40           |

#### Uputstva

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

#### Princip i interpretacija

Dermatofiti su posebna grupa gljivica koji inficiraju kosu, kožu i nokte ljudi i životinja produkujući različite kožne infekcije poznate kao "ringworm" (2). Dermatofite kao što su gljivice rodova Trichophyton, Microsporum i Epidermophyton su odgovorni za većinu kožnih gljivičnih infekcija (1). D.T.M. Agar bazu je razvio Taplin kao selektivnu i diferencijalnu podlogu za detekciju i identifikaciju dermatofita (2). Na ovoj podlozi identifikacija dermatofita je zasnovana na morfologiji i na proizvodnji alkalnih metabolita. Kombinacija tri antimikrobnih agensa (amfotericin B, hlorotetraklin i gentamicin) inhibiraju se bakterije i saprofitni kvasci i plesni. Dermatofite su prvenstveno identifikuju na osnovu morfologije i na osnovu proizvodnje alkalnih metabolita koji podižu pH podloge i uzrokuju promenu boje indikatora fenol crvenog od žute do ružičasto-crvene (2-4).

Papainski hidrolizat soje obezbeđuje azotna i ugljenikova jedinjenja neophodna za rast. Glukoza je izvor energije. Indikator pH, fenol crveno, se koristi za detekciju proizvodnje amina. Amfotericin B inhibira većinu saprofitnih gljivica. Gentamicin inhibira Gram-negativne bakterije uključujući i vrste roda Pseudomonas, dok hlorotetraklin inhibira širok spektar Gram-pozitivnih i Gram-negativnih bakterija. Prisustvo rasta na podlozi omogućava verovatnu identifikaciju kolonija kao dermatofita. D.T.M. Agar pomaže u izolaciji i ranom prepoznavanju članova rodova Microsporum, Trichophyton na osnovu različite promene boje od žute do crvene. Brzo rastuće vrste mogu izazvati potpunu promenu boje u roku od 3 dana, dok će sporo rastuće vrste promeniti boju nakon srazmerno dužeg vremena. Ne-dermatofite se prepoznavaju po odsustvu promene boje. Nekoliko saprofita, kvasaca i bakterija menjaju boju podloge od žute do crvene, ali se lako mogu razlikovati po morfologiji kolonija. Kompletna klasifikacija dermatofita podrazumeva mikroskopski pregled kulture i izvođenje biohemiskih i seroloških testova.

#### Kontrola kvaliteta

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

#### Skladištenje i rok upotrebe

Čuvati između 15-25°C. Nakon prvog otvaranja čuvati na 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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#### Literatura

- Isenberg (Eds.), 1992, Clinical Microbiology Procedures Handbook, Vol . 1, American Society for Microbiology, Washington, D.C.
- Taplin, Zaias, Rebell and Blank, 1969, Arch. Dermatol., 99:203-209.
- Murray P. R., Baron J. H., Pfaffer M. A., Jorgensen J. H. and Yolken R. H., (Eds.), 2003, Manual of Clinical Microbiology, 8th Ed., American Society for Microbiology, Washington, D.C.
- Kwon-Chung and Bennett, 1992, Medical Mycology, Lea & Febiger, Philadelphia, Pa.
- Rosenthal S., Stritzler R. and Villafane J., 1968, Arch. Dermatol., 97:685.

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

## INSTRUCTION FOR USE

(EN)

### Dermatophyte Test Medium (D.T.M.) Agar Plate

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

#### Package contents:

| Item code<br>(packaging) REF | Description                               | Primary<br>packaging<br>code: | Number of<br>products |
|------------------------------|---|-------------------------------|-----------------------|
| PRM188V20                    | Substrate poured into petri dishes of Ø90 | PRM188                        | 20                    |
| PRM188V60                    |   |                               | 60                    |
| PRM188V240                   |   |                               | 240                   |
| PRM188M40                    | 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

The Dermatophytes are a distinct group of fungi that infect the hair, skin and nails of humans and animals producing a variety of cutaneous infections known as ringworm (2). Dermatophytes like Trichophyton, Microsporum and Epidermophyton are responsible for most of the cutaneous fungal infections (1). DTM Agar Base was developed by Taplin as a selective and differential medium for detection and identification of dermatophytes (2). On this medium identification of Dermatophytes are based on morphology and alkaline metabolites production. A combination of three antimicrobial agents (amphotericin B, chlortetracycline and gentamicin) inhibits bacteria and saprophytic yeasts and moulds. Dermatophytes are presumptively identified based on gross morphology and the production of alkaline metabolites, which raise the pH and cause the phenol red indicator to change the colour of the medium from yellow to pink-red (2-4).

Papaic digest of soyabean meal provides nitrogenous and carbonaceous substances essential for growth. Glucose is the energy source. The pH indicator, phenol red, is used to detect amine production. Amphotericin B inhibits most of the saprophytic fungi. Gentamicin inhibits Gram-negative bacteria including Pseudomonas species while chlortetracycline inhibits a wide range of Gram-positive and Gram-negative bacteria. The presence of growth on the medium provides presumptive identification of dermatophytes. D.T.M. Agar helps in isolation and early recognition of members of the Microsporum, Trichophyton by means of the distinct colour change from yellow to red. Rapidly growing species may effect a complete colour change within 3 days while slow growers will change colour in proportionately longer time. Non-Dermatophytes can be recognized by the absence of colour change. A few saprophytes, yeasts and bacteria change the medium from yellow to red, but can be easily distinguished by colonial morphology. Complete classification of Dermatophytes depends on microscopic observations along with biochemical and serological tests.

#### 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 15-25°C. After opening 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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