

## UPUTSTVO ZA UPOTREBU

(SRB)

### HiVeg Mueller Hinton Agar Plate

Podloga za kultivaciju Neisseria i određivanje osetljivosti mikroorganizama na antimikrobne agense.

#### Sadržaj pakovanja:

Šifra artikla (pakovanja) REF	Opis	Šifra primarnog pakovanja:	Broj podloga
PRV173V20	Podloga izlivena u petri posudama od ø90	PRV173	20
PRV173V60			60
PRV173V240			240
PRV173M40	Podloga izlivena u petri posudama od ø50		40

#### Uputstva

Pod aseptičnim uslovima se standardna suspenzija test organizma nanosi (obično brisom) preko cele površine podloge.

#### Princip i interpretacija

Ova podloga je pripremljena potpunom zamenom peptona životinjskog porekla biljnim peptonom. Muller Hinton HiVeg Agar je modifikacija Muller Hinton Agara koja se preporučuje za izvođenje disk-difuzione metode kod ispitivanja antimikrobne osetljivosti organizama. Antimikrobro sredstvo impregnirano na papirnom disku difunduje kroz agarizovanu podlogu kao što je opisano CLSI Approved Standard (1). Muller Hinton HiVeg se koristi za određivanje minimalne inhibitorne koncentracije (MIC) antimikrobnih sredstava kod aerobnih bakterija (2). Kirby-Bauer i sar. preporučuju ovu podlogu za izvođenje testova osetljivosti na antibiotike koristeći jedan disk visoke koncentracije aktivne supstance (3). HiVeg infuzom i HiVeg kiselinski hidrolizat obezbeđuju potrebna azotna, ugljenikova i sumporna jedinjenja, kao i druge esencijalne hranljive materije. Skrob deluje kao zaštitni koloid protiv toksičnih supstanci prisutnih u podlozi. U toku autoklaviranja skrob se hidrolizuje i obezbeđuje određene količine dekstroze koja služi kao izvor energije. Rast gonokoka i meningokaka je visoko zadovoljavajuća na ovoj podlozi.

Standardizovana suspenzija test organizma se nanosi po celoj površini podloge. Zatim se papirni diskovi impregnirani određenom količinom specifičnog antibiotika postavljaju na površinu podloge. Podloga se inkubira nakon čega se mere zone inhibicije oko svakog diska. Na osnovu prečnika zone inhibicije i poređenja sa standardnim veličinama zona, određuje se da li je organizam osetljiv, srednje osetljiv ili resistentan na ispitano antimikrobro sredstvo. Faktori koji utiču na disk-difuziono određivanje antimikrobne osetljivosti organizama su: debljina agarizovane podloge, potencijal diska, koncentracija inokuluma, pH proizvedene podloge i produkcija beta-laktamaze od strane test organizma (4).

#### 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

1. Kauffmann F., and Petersen A., 1956, Acta. Pathol. Microbiol. Scand., 38 (6) : 481.
2. Standard Methods for the Examination of Dairy Products. 2004 17th Edition. Wehr. HM and Frank JH, 2004
3. MacFaddin JF., 1985, Media for Isolation-Cultivation-Identification – Maintenance of Medical Bacteria, Vol. 1, Williams and Wilkins, Baltimore.
4. Ewing., 1986, Edwards and Ewing's identification of Enterobacteriaceae, 4th Ed., Elsevier Science Publishing Co., Inc. New York.

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

## INSTRUCTION FOR USE

(EN)

### HiVeg Mueller Hinton Agar Plate

Medium is used for cultivation of *Neisseria* and for determination of susceptibility of microorganisms to antimicrobial agents.

#### Package contents:

Item code (packaging) REF	Description	Primary packaging code:	Number of products
PRV173V20	Substrate poured into petri dishes of ø90	PRV173	20
PRV173V60			60
PRV173V240			240
PRV173M40			40

#### Directions

Standard suspension of test microorganisms aseptically swabbed over the entire surface of the medium.

#### Principle and interpretation

These media are prepared by completely replacing animal based peptones with vegetable peptones. Mueller Hinton HiVeg Agar is the modification of Mueller Hinton Agar which is recommended for the diffusion of antimicrobial agents impregnated on paper disc through an agar gel as described in CLSI Approved Standard (1). Mueller Hinton HiVeg is used for determining Minimal Inhibitory Concentration (MIC) of antimicrobials for aerobic bacteria (2). Kirby-Bauer et al recommended this medium for performing antibiotic susceptibility tests using a single disc of high concentration (3). HiVeg infusion and HiVeg acid hydrolysate provide nitrogenous compounds, carbon, sulphur and other essential nutrients. Starch acts as a "protective colloid" against toxic substances present in the medium. During autoclaving the starch gets hydrolyzed and provides some amount of dextrose, which then serves as energy source. Growth of Gonococci and Meningococci is highly satisfactory on this medium. A standardized suspension of the organisms is swabbed over the entire surface of the agar medium. Paper discs impregnated with certain amount of specific antibiotics are placed on the surface of the medium. The plates are incubated and the zones of inhibition around each disc are measured. It is then determined whether the organism is susceptible, intermediate or resistant to an agent by comparing the zone-sizes to standard zone-sizes. Different factors influence the disc diffusion susceptibility tests as, inoculum concentration, agar depth, disc potency, medium pH and beta-lactamase production by test organisms (4).

#### 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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#### Reference

1. Kauffmann F., and Petersen A., 1956, Acta. Pathol. Microbiol. Scand., 38 (6) : 481.
2. Standard Methods for the Examination of Dairy Products. 2004 17th Edition. Wehr. HM and Frank JH, 2004
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