PROREADY
Ready To Use Culture Media

CE IVD

UPUTSTVO ZA UPOTREBU (SRB)

SS Agar Plate (Salmonella Shigella Agar)

Podloga za selektivnu izolaciju i diferencijaciju koliforma i drugih enteropatogena.

Sadržaj pakovanja:

Šifra artikla (pakovanja)	Opis	Šifra primarnog pakovanja:	Broj podloga
PRM1032V20	Podloga izlivena u petri posudama od ø90	**PRM1032**	**20**
PRM1032V60			**60**
PRM1032V240			**240**
PRM1032M40	Podloga izlivena u petri posudama od ø50		**50**

Uputstva

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

Princip i interpretacija

Bakterijske vrste rodova Salmonella i Shigella su Gram-negativni, fakultativno anaerobni, asporogeni štapići familije Enterobacteriaceae. SS agar se preporučuje kao diferencijalna i selektivna podloga za izolovanje Salmonella i Shigella vrsta iz patoloških uzoraka (1) i uzoraka hrane (2, 3, 4, 5) i za mikrobiološki „limit test" (6). SS agar je umereno selektivna podloga u kojoj je inhibiran rast Gram-pozitivnih bakterija usled prisustva žučnih soli, brilijant zelenog i natrijum citrata.
Peptinski hidrolizat životinjskog tkiva i goveđi ekstrakt obezbeđuju esencijalne nutritivne faktore. Laktoza je ugljeni hidrat koji podleže fermentaciji. Brilijant zeleno, žučne soli i tiosulfat selektivno inhibiraju Gram-pozitivne i koliformne organizme. Natrijum tiosulfat se pod uticajem određenih enterobakterija redukuje do sulfita uz oslobađanje vodonik sulfida. Ovaj enzimski proces redukcije odvija se pod dejstvom tiosulfat reduktaze. Oslobađanje gasa se detektuje kroz formiranje nerastvornog, crnog precipitata gvožđe sulfida u centru kolonija, koji nastaje reakcijom vodonik sulfida sa jonima gvožđa ili gvožđe citratom.
Visoka selektivnost SS agara dozvoljava upotrebu velike količine inokuluma, direktno iz fecesa, rektalnog brisa ili drugog materijala za koji postoji sumnja da sadrži patogene enterobakterije. Neki laktoza-fermentujući organizmi, koji su sastavni deo crevne mikrobiote, razlažu laktozu do kiseline što se detektuje promenom boje pH indikatora (neutralno crvenog) iz žute u crvenu. Zato ovi organizmi daju crveno obojene kolonije. Mikroorganizmi koji ne fermentuju laktozu daju delimično providne, bezbojne kolonije sa ili bez crnog centra. Rast Salmonella vrsta nije inhibiran, te se javljaju bezbojne kolonije sa crnim centrom zbog produkcije H2S. Shigella vrste rastu kao bezbojne vrste koje ne produkuju H2S.
U slučaju ispitivanja uzoraka za koje se pretpostavlja da su bili izloženi tretmanu koji je narušio viabilnosti mikroorganizama, bilo usled prerade namirnica, ili u slučaju antibiotske terapiji pacijenta kod humanih uzoraka, neophodno je njihovo prethodno obogaćenje u Selenit cistin bujonu ili u Tetrationat bujonu. Ploče SS agara se zatim zasejavaju obogaćenom kulturom. Posle inkubiranja, sumnjive kolonije treba presejati na diferencijalnu podlogu i uraditi biohemijsku i serološku identifikaciju.

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

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

EC REP	Salus Cons kft. 6722 Szeged, Bécsi krt 23, HUNGARY e-mail: office@saluscons.com

Literatura

1. Lennette and others (Eds.), 1985, Manual of Clinical Microbiology, 4th ed., ASM, Washington, D.C.
2. Downes F. P. and Ito K., (Eds.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., APHA, Washington, D.C.
3. Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed., APHA Inc., Washington, D.C.
4. 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.
5. Williams S., (Ed.), 2005, Official Methods of Analysis of the Association of Official Analytical Chemists, 19th Ed., AOAC, Washington, D.C.
6. The United States Pharmacopoeia, 2006, USP29/NF24, The United States Pharmacopoeial Convention. Rockville, MD.
7. MacFaddin J., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.

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

PROREADY
Ready To Use Culture Media

CE IVD

INSTRUCTION FOR USE (EN)

SS Agar Plate (Salmonella Shigella Agar)

SS Agar (Salmonella Shigella Agar) is used for the differentiation and selective isolation of Salmonella and Shigella species from pathological specimens, food samples etc.

Package contents:

Item code (packaging) REF	Description	Primary packaging code:	Number of products
PRM1032V20	Substrate poured into petri dishes of ø90	**PRM1032**	**20**
PRM1032V60			**60**
PRM1032V240			**240**
PRM1032M40	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

Salmonella and Shigella are Gram-negative, facultatively anaerobic, non-sporulating rods in the family Enterobacteriaceae. SS Agar is recommended as differential and selective medium for the isolation of Salmonella and Shigella species from pathological specimens (1) and suspected food samples (2, 3, 4, 5) and for microbial limit test (6). SS Agar is a moderately selective medium in which Gram-positive bacteria are inhibited by bile salts, brilliant green and sodium citrate.

Peptic digest of animal tissue and beef extract provide essential growth nutrients. Lactose is the fermentable carbohydrate. Brilliant green, bile salts and thiosulphate selectively inhibit Gram-positive and coliform organisms. Sodium thiosulphate is reduced by certain species of enteric organisms to sulphite and H2S gas. This reductive enzymatic process is attributed to thiosulphate reductase. Production of H2S gas is detected as an insoluble black precipitate of ferrous sulphide, formed upon reaction of H2S with ferric ions or ferric citrate, indicated by black centered colonies.

The high selectivity of Salmonella Shigella Agar allows the use of large inoculum directly from faeces, rectal swabs or other materials suspected of containing pathogenic enteric bacilli. On fermentation of lactose by few lactose-fermenting normal intestinal flora, acid is produced which is indicated by change of color from yellow to red by the pH indicator neutral red. Thus these organisms grow as red-pigmented colonies. Lactose non-fermenting organisms grow as translucent colorless colonies with or without black centers. Salmonella species exhibit colourless colonies with black centers resulting from H2S production. Shigella species form colourless colonies, which do not produce H2S.

While using samples suspected of being exposed to treatments that might have damaged the viability of microorganisms due to processing of food materials or samples from patients under antibiotic treatment etc., previous enrichment in Selenite cystine Broth Base or Tetrathionate Broth Base is necessary. Inoculate SS Agar plates with the enriched culture. After incubation the suspicious colonies should be subcultured on differential media to be identified biochemically or serologically.

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

CE	European Conformity mark		This side up
IVD	is an in vitro diagnostic medical device (IVD)	REF	Catalogue number
	Do not expose directly to sunlight	LOT	Batch code
	Consult instructions for use		Use-by date
	Do not re-use		Temperature limit
	Pack size		Manufacturer
EC REP	European Authorized Representative (Authorised Representative)		

EC REP	Salus Cons kft. 6722 Szeged, Bécsi krt 23, HUNGARY e-mail: office@saluscons.com

Reference

1. Lennette and others (Eds.), 1985, Manual of Clinical Microbiology, 4th ed., ASM, Washington, D.C.
2. Downes F. P. and Ito K., (Eds.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., APHA, Washington, D.C.
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