Product :
D/E NEUTRALIZING AGAR BASE

Also known as

Dey-Engley Neutralizing Agar

Specification

Solid culture medium for the neutralization and testing of antiseptics and disinfectants.

Formula * in g/L

Tryptone	5.00	Bromocresol purple	0.02
Yeast extract	2.50	Agar	15.00
Detrose	10.00		
Lecithin	7.00	Final pH 7,6 ±0,2 at 25 ºC	
Sodium thioglychollate	1.00		
Sodium thiosulphate (anhy.)	3.82 (*1)	(*1) Equivalent to 6 g of	
Sodium bisulfite	2.50	Soodium thiosulphate. $5H_2O$	

* Adjusted and /or supplemented as required to meet performance criteria

Directions

Suspend 46.84 g of powder in 1 L of distilled water with 5 mL of Polysorbate 80 (Art. No. TW0080) and bring to the boil. Distribute in suitable containers and sterilize in the autoclave at 121ºC for 15 minutes. The appearance of precipitates is normal and does not affect results.

Description

Dey & Engley developed this medium in 1983 to recover chemically damaged staphylococci. At present its use is generally for testing by the contact plate method (Contact Plates), the efficiency of antiseptics and disinfectants on impervious surfaces. The present formulation incorporates neutralizing substances for almost all the active products used as antiseptics and disinfectants. Lecithin neutralizes quaternary ammonium compounds (QAC's); Polysorbate acts on phenolics and formalin; thioglycolate neutralizes the organic-mercurial compounds; thiosulfate-sulfite inactivates halogen-compounds and; lecithin + polysorbate neutralizes ethanol and other alcoholic compounds.

Technique

When the contact plates are filled in the laboratory, be careful with the meniscus of the agar: It should rise above the rim of the plate to give a slightly convex surface to make proper contact with the surface to be sampled.
For sampling, remove the cover of the contact plate and carefully press the agar surface to the surface being sampled. Make certain that the entire agar meniscus contacts the surface. Replace the cover and incubate in an inverted position under the time and temperature conditions for the microorganisms in question. Express the results as "colonies per contact plate" or "colonies per cm2".

Quality control

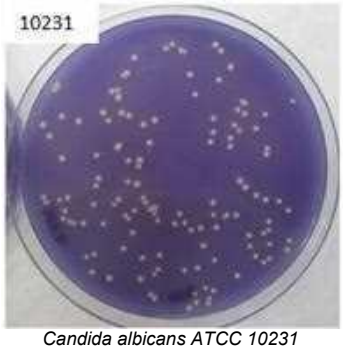
Incubation temperature: 35°C ±2,0 **Incubation time:** 24-48 h

Inoculum: Practical range 100 ± 20 CFU. Min. 50 CFU (Productivity) according to ISO 11133:2014/Amd 1:2018. Spiral Plate Method.

Microorganism	Growth	Remarks
Escherichia coli ATCC® 8739	Productivity > 0.70	-
Pseudomonas aeruginosa ATCC® 9027	Productivity > 0.70	-
Staphylococcus aureus ATCC® 6538	Productivity > 0.70	-
Candida albicans ATCC® 10231	Productivity > 0.70	-
Bacillus subtilis ATCC® 6633	Productivity > 0.70	-

Staphylococcus aureus ATCC 6538

Pseudomonas aeruginosa ATCC 9027



Candida albicans ATCC 10231

References

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· DEY, B.P. & F.B. ENGLEY (1983) Methodology for recovery of chemically treated Staphilococcus aureus with neutralizing medium. Appl. Environm. Microbiol. 453:1533-1537.

· EVANCHO, G.M., W.H. SVEUM, LL. J. MOBERG & J.F. FRANK (2001) Microbiological Monitoring of the Food Processing Environment. In Downes & Ito (Eds) Compendium of Methods for the Microbiological Examination of Foods. 4th ed. APHA. Washington. DC.

· HICKEY, P.J., C.E. BECKELHEIMER, & T. PARROW (1992) Microbiological tests for equipment, containers, water and air. In R.T. Marshall (Ed.) Standard Methods for the examination of Dairy Products. 16th ed. APHA. Washington.

. ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.

Storage

For laboratory use only. Keep tightly closed, away from bright light, in a cool dry place (+4 ºC to 30 ºC).