

CM 22257 - DEY ENGLE Y NEUTRALIZING AGAR PLATE

INTENDED USE

For disinfectant testing, where neutralization agent is important for determining its bactericidal activity.

PRODUCT SUMMARY AND EXPLANATION

DEY ENGLE Y NEUTRALIZING AGAR is used in disinfectant testing where neutralization of the antiseptics and disinfectants is important for determining its bactericidal activity. Use of a strong bacteriostatic substance having the ability to inhibit the growth and reproduction of potentially harmful bacteria, may lead to insufficient disinfection procedure, if the bacteria survive the procedure and causes serious infection under favourable conditions. Thus, to differentiate between bacteriostatic and bactericidal action of the disinfectant, Dey and Engley developed this media which determines the disinfectant's efficacy by neutralizing a broad spectrum of antiseptics and disinfectants including quaternary ammonium compounds, phenolics, iodine and chlorine preparations, mercurials, formaldehyde and glutaraldehyde.

COMPOSITION

| Ingredients | Gms / Ltr |
|-------------------------------------|------------------|
| Agar | 15.000 |
| Dextrose | 10.000 |
| Lecithin | 7.000 |
| Sodium thiosulphate | 6.000 |
| Casein enzymatic hydrolysate | 5.000 |
| Polysorbate 80 | 5.000 |
| Yeast extract | 2.500 |
| Sodium bisulphite | 2.500 |
| Sodium thioglycolate | 1.000 |
| Bromocresol purple | 0.020 |

PRINCIPLE

Casein enzymatic hydrolysate and yeast extract provides essential nutrients. The media incorporates neutralizing substances for almost all the active products used as antiseptics and disinfectants. Sodium thioglycollate neutralizes mercurials; Sodium bisulfite neutralizes aldehydes; sodium thiosulfate neutralizes iodine and chlorine; lecithin neutralizes quaternary ammonium compounds; and polysorbate 80, a non-ionic surface-active agent, neutralizes substituted phenolics. Dextrose is the energy source and Bromocresol purple is used as a colorimetric indicator to demonstrate the production of acid from the fermentation of dextrose. Addition of dextrose and bromocresol purple aids in detection of microbial growth as the media color changes from purple to yellow due to a change in pH.

INSTRUCTION FOR USE

Either streak, inoculate or surface spread the test inoculum aseptically on the plate. Alternatively, these plates can also be used as settle plates for environmental monitoring.

QUALITY CONTROL SPECIFICATIONS



| | | |
|---------------------------|---|------------------------------------|
| Appearance | : | Purple coloured medium |
| Quantity of Medium | : | 15-18 ml of medium in 55mm plates. |
| pH (at 25°C) | : | 7.6 ± 0.2 |
| Sterility Check | : | Passes release criteria |

INTERPRETATION

Cultural characteristics observed after incubation.

| Microorganism | ATCC | Inoculum (CFU/ml) | Growth | Recovery | Incubation Temperature | Incubation Period |
|-------------------------------|-------|-------------------|-----------|----------|------------------------|-------------------|
| <i>Bacillus subtilis</i> | 6633 | 50-100 | Luxuriant | >=70% | 35±2°C | 40-48 hours |
| <i>Staphylococcus aureus</i> | 25923 | 50-100 | Luxuriant | >=70% | 35±2°C | 40-48 hours |
| <i>Staphylococcus aureus</i> | 6538P | 50-100 | Luxuriant | >=70% | 35±2°C | 40-48 hours |
| <i>Escherichia coli</i> | 25922 | 50-100 | Luxuriant | >=70% | 35±2°C | 40-48 hours |
| <i>Escherichia coli</i> | 8739 | 50-100 | Luxuriant | >=70% | 35±2°C | 40-48 hours |
| <i>Pseudomonas aeruginosa</i> | 27853 | 50-100 | Luxuriant | >=70% | 35±2°C | 40-48 hours |
| <i>Pseudomonas aeruginosa</i> | 9027 | 50-100 | Luxuriant | >=70% | 35±2°C | 40-48 hours |
| <i>Salmonella typhimurium</i> | 14028 | 50-100 | Luxuriant | >=70% | 35±2°C | 40-48 hours |

PACKAGING:

Doublelayeredpacking containing 5 No. of plates with one silica gel desiccant bag packed inside it.

STORAGE

On receipt,store the plates at 15–30 °C. Avoid freezing and overheating. Do not open until ready to use. Prepared plates stored in their original sleeve wrapping until just prior to use may be inoculated up to the expiration date and incubated for recommended incubation times. Allow the medium to warm to room temperature before inoculation.

Product Deterioration: Do not use plates if they show evidence of microbial contamination, discoloration, drying, cracking or other signs of deterioration.











DISPOSAL

Afteruse,prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

- Engley, F. B., Jr.and B. P. Dey. A universal neutralizing medium for antimicrobial chemicals. Presented at the Chemical Specialties Manufacturing Association (CSMA) Proceedings. 56th MidYear Meeting. (1970).
- Downes F. P. and Ito K., (Ed.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed. American Public Health Association, Washington, D.C.
- Quisno R.A., Gibby I.W., and Foter M.J., 1946, Am. J. Phar., 118:320
- Erlanson A. L., and Lawrence C. A., 1953, Science 118:274.
- Brummer B., 1976, Appl. Environ. Microbiol., 32:80.



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|---|---|--|--|--|
|  Quantity |  Lot / Batch Number |  Temperature Unit |  Best Before |  Manufacturer |
|  Certification of Good Manufacturing Practices |  Catalogue No. |  European Conformity |  QR Code |  Consults Instructions for use : |

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For LabUse Only**