

R2A AGAR

APPLICATION	Agar Medium S or R2A Agar, is recommended for heterotrophic plate count of treated potable water using longer incubation periods, in accordance with the European Pharmacopoeia.																												
PRINCIPLE AND INTERPRETATION	<p>Agar Medium S (R2A Agar) is used for the heterotrophic plate counts and for sub culturing isolates from potable waters using longer incubation periods as per European Pharmacopoeia ¹² It is recommended for pour plate, spread plate and membrane filter techniques. Plate count recommended for the bacterial examination of potable waters, gives an estimate of the aerobic and facultative anaerobic bacteria, which grow best at 35°C on a rich medium . However these organisms may represent a small number of total bacteria as other bacteria are either unable to grow under these conditions, or grow very slowly which cannot be detected in 48 hours. R2A Agar is modified for better recovery of these bacteria from treated waters under different incubation conditions ³.</p> <p>Many bacteria from natural waters, which contain limited nutrients at ambient temperature, grow best on the media with less nutrient levels. Moreover, they grow better at the temperatures below the routine laboratory incubation temperatures of 35 to 37°C . R-2 A Agar, Modified is a low nutrient medium consisting of less proteose peptone, yeast extract and glucose as compared to Standard Methods Agar. This medium allows the growth of stressed, injured and chlorine tolerant bacteria present in treated waters due to the presence of pyruvate and starch. The number of colonies on a plate is reported as CFU (Colony Forming Units) per volume of sample.</p>																												
MEDIUM COMPOSITION*	<p>Casein hydrolysate.....0.500 g/l Yeast Extract.....0.500 g/l Proteose Peptone.....0.500 g/l Starch.....0.500 g/l Glucose.....0.500 g/l Dipotassium hydrogen phosphate.....0.300 g/l Magnesium sulphate anhydrous.....0.240 g/l Sodium pyruvate.....0.300 g/l Agar15.000 g/l</p> <p>Final pH 7.2 ± 0.2</p> <p>*Adjusted and/or supplemented to meet performances criteria</p>																												
STORAGE	+2°/+25°C Protect from light, excessive heat, moisture and freezing																												
QUALITY CONTROL	<p>Growth Promotion Test:</p> <table border="1" data-bbox="502 1512 1476 1971"> <thead> <tr> <th>Control strain</th> <th>Medium inoculation level</th> <th>Incubation Conditions</th> <th>Recovery Specifications</th> </tr> </thead> <tbody> <tr> <td><i>E. coli</i> ATCC 8739</td> <td>10-100 viable microorganisms</td> <td>24-72 h at 32.5 ± 2.5°C</td> <td>70% ≤ R% ≤ 200%</td> </tr> <tr> <td><i>P. aeruginosa</i> ATCC 9027</td> <td>10-100 viable microorganisms</td> <td>24-72 h at 32.5 ± 2.5°C</td> <td>70% ≤ R% ≤ 200%</td> </tr> <tr> <td><i>S. aureus</i> ATCC 6538</td> <td>10-100 viable microorganisms</td> <td>24-72 h at 32.5 ± 2.5°C</td> <td>70% ≤ R% ≤ 200%</td> </tr> <tr> <td><i>B. subtilis</i> ATCC 6633</td> <td>10-100 viable microorganisms</td> <td>24-72 h at 32.5 ± 2.5°C</td> <td>70% ≤ R% ≤ 200%</td> </tr> <tr> <td><i>C. albicans</i> ATCC 10231</td> <td>10-100 viable microorganisms</td> <td>72-120 h at 22.5 ± 2.5°C</td> <td>70% ≤ R% ≤ 200%</td> </tr> <tr> <td><i>A. brasiliensis</i> ATCC 16404</td> <td>10-100 viable microorganisms</td> <td>72-120 h at 22.5 ± 2.5°C</td> <td>70% ≤ R% ≤ 200%</td> </tr> </tbody> </table>	Control strain	Medium inoculation level	Incubation Conditions	Recovery Specifications	<i>E. coli</i> ATCC 8739	10-100 viable microorganisms	24-72 h at 32.5 ± 2.5°C	70% ≤ R% ≤ 200%	<i>P. aeruginosa</i> ATCC 9027	10-100 viable microorganisms	24-72 h at 32.5 ± 2.5°C	70% ≤ R% ≤ 200%	<i>S. aureus</i> ATCC 6538	10-100 viable microorganisms	24-72 h at 32.5 ± 2.5°C	70% ≤ R% ≤ 200%	<i>B. subtilis</i> ATCC 6633	10-100 viable microorganisms	24-72 h at 32.5 ± 2.5°C	70% ≤ R% ≤ 200%	<i>C. albicans</i> ATCC 10231	10-100 viable microorganisms	72-120 h at 22.5 ± 2.5°C	70% ≤ R% ≤ 200%	<i>A. brasiliensis</i> ATCC 16404	10-100 viable microorganisms	72-120 h at 22.5 ± 2.5°C	70% ≤ R% ≤ 200%
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¹ European Pharmacopoeia current dition

² Reasoner and Geldreich, 1985, Appl. Environ. Microbiol. 49:1

³ Collins and Willoughby, 1962, Arch. Microbiol. 43:294

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GENERAL WARNING NOTES	<p>Device must be handled according to asepsis precautions, of utilization of culture media is strictly referred to the type of analysis that must be done. Please refer to specific norms and procedures. Do not use if device is broken. Do not use if media shows accidental contamination signs. Do not utilize after expiry date. Let device reach room temperature before utilizing. Results interpretation must be done by qualified personnel, who must consider context of use.</p> <p>Disposal of waste must be carried out according to national and local regulations in force.</p>
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This product is available in:

➤ Sterile bottled media

MODEL	PRODUCT CODE	ORDER CODE	DESCRIPTION	SHELF LIFE
200ml bottle	962E/31PSC28.200	962E/31PSC28.200.10 (10 bottles/pack)	200ml in 250ml volume, PP28Screw Cap Bottle	1 year

➤ Non gamma irradiated media plates

MODEL	PRODUCT CODE	ORDER CODE	DESCRIPTION	SHELF LIFE
Ø90mm	962E/10	962E/10.100 (100pcs/pack)	Filling volume: 24ml Packaging: Single Wrapping (SW)	6 months
Ø60mm	962E/14	962E/14.100 (100pcs/pack)	Filling volume: 10ml Packaging: Single Wrapped	6 months