

## R2A AGAR

<b>APPLICATION</b>	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.																											
<b>PRINCIPLE AND INTERPRETATION</b>	<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 <sup>12</sup> 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.</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, 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>																											
<b>MEDIUM COMPOSITION*</b>	<table border="0"> <tr> <td>Casein hydrolysate</td> <td>.....</td> <td>0.500 g/l</td> </tr> <tr> <td>Yeast extract</td> <td>.....</td> <td>0.500 g/l</td> </tr> <tr> <td>Proteose Peptone</td> <td>.....</td> <td>0.500 g/l</td> </tr> <tr> <td>Starch</td> <td>.....</td> <td>0.500 g/l</td> </tr> <tr> <td>Glucose</td> <td>.....</td> <td>0.500 g/l</td> </tr> <tr> <td>Dipotassium hydrogen phosphate</td> <td>.....</td> <td>0.300 g/l</td> </tr> <tr> <td>Magnesium sulphate anhydrous</td> <td>.....</td> <td>0.240 g/l</td> </tr> <tr> <td>Sodium pyruvate</td> <td>.....</td> <td>0.300 g/l</td> </tr> <tr> <td>Agar</td> <td>.....</td> <td>15.00 g/l</td> </tr> </table> <p>Final pH 7.0 ± 0.2</p> <p>*Adjusted and/or supplemented to meet performances criteria</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	Agar	.....	15.00 g/l
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<b>STORAGE</b>	<p>+2°/+25°C</p> <p>Protect from light, excessive heat, moisture and freezing</p>																											
<b>QUALITY CONTROL</b>	<table border="1"> <thead> <tr> <th colspan="3"><b>Growth Promotion Test: 10-100 viable microorganisms</b></th> </tr> <tr> <th><b>Control strain</b></th> <th><b>Incubation Conditions</b></th> <th><b>Specifications</b></th> </tr> </thead> <tbody> <tr> <td><i>E. coli</i> ATCC 8739</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>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>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>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>72-120 h at 22.5 ± 2.5°C</td> <td>70%≤R%≤200%</td> </tr> </tbody> </table>	<b>Growth Promotion Test: 10-100 viable microorganisms</b>			<b>Control strain</b>	<b>Incubation Conditions</b>	<b>Specifications</b>	<i>E. coli</i> ATCC 8739	24-72 h at 32.5 ± 2.5°C	70%≤R%≤200%	<i>P. aeruginosa</i> ATCC 9027	24-72 h at 32.5 ± 2.5°C	70%≤R%≤200%	<i>S. aureus</i> ATCC 6538	24-72 h at 32.5 ± 2.5°C	70%≤R%≤200%	<i>B. subtilis</i> ATCC 6633	24-72 h at 32.5 ± 2.5°C	70%≤R%≤200%	<i>C. albicans</i> ATCC 10231	72-120 h at 22.5 ± 2.5°C	70%≤R%≤200%						
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<sup>1</sup> European Pharmacopoeia current dition

<sup>2</sup> Reasoner and Geldreich, 1985, Appl. Environ. Microbiol. 49:1

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	<i>A. brasiliensis</i> ATCC 16404	72-120 h at 22.5 ± 2.5°C	70%≤R%≤200%
	<b>Sterility control</b>		No growth
	<b>Appearance</b>		Light yellow coloured, clear to slightly opalescent gel forms in plates plates
<b>BARCODE</b>	<p>Data matrix code is composed of 20 digits:</p> <p><b>Digits 1→2</b>                      Media code  <b>Digits 3→7</b>                      Batch number  <b>Digits 8→9</b>                      Sub-batch number  <b>Digits 10→14</b>                    Progressive number  <b>Digits 15→20</b>                    Expiry Date (DDMMYY)</p>		
<b>GENERAL WARNING NOTES</b>	<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>		

## R2A AGAR

This product is available in:

- Non gamma irradiated media plates

MODEL	PRODUCT CODE	ORDER CODE	DESCRIPTION	SHELF LIFE
Ø90mm	962E/10	962E/10.100 (100pcs/pack)	<b>Filling volume:</b> 30ml <b>Packaging:</b> Single Wrapping (SW)	8 months

*Customized filling volumes and formulations are available upon request*  
*To receive information please*  
*contact [info@cpcbiotech.it](mailto:info@cpcbiotech.it)*