

## Agar Agar, Bacteriological Grade

### Intended Use

Agar is used as a solidifying agent used in microbiological culture media.

### Summary and Principle

Agar is a phycocolloid, water soluble polysaccharide, extracted from a group of red-purple marine algae (Class *Rhodophyceae*) including *Gelidium* and *Gracilaria*. Agar is normally used in final concentration of 1-2% for solidification of culture media. The most important properties of agar are:

1. Good transparency to allow identification of colony type.
2. Consistent gelling (32°C-40°C) and melting (approximately 85°C) temperatures, a property known as hysteresis.
3. Free from toxic substances (bacterial inhibitors).

### Storage and Stability

Store dehydrated medium below 30°C in tightly closed container. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

**Note:** TSE/BSE certificate is available on request.

### Directions

Refer to the final concentration in the formula of the medium being prepared

### Quality Control

<b>Test</b>	<b>Specifications</b>
<b>Appearance:</b>	Cream coloured, free flowing powder
<b>Solubility:</b>	Completely soluble in boiling water
<b>Colour and Clarity of 1% w/v aqueous solution after autoclaving at 15 psi / 15 min:</b>	Clear gel
<b>pH after autoclaving:</b>	6.5 ± 1.0
<b>Gelling temperature:</b>	30°C - 40°C
<b>Ash Content:</b>	Not More Than 10%
<b>Loss on Drying (Moisture Content):</b>	Not More Than 5%
<b>Gel firm Test:</b>	Smooth streak line with no cut in agar
<b>Gel melting temperature:</b>	80°C - 90°C
<b>Total microbial count:</b>	Less than 1000 cfu/g
<b><i>E. coli</i>:</b>	Absent
<b><i>Salmonella</i>:</b>	Absent
<b><i>Pseudomonas aeruginosa</i>:</b>	Absent
<b><i>Staphylococcus aureus</i>:</b>	Absent
<b>Gel strength (1.5% gel, at 20° C):</b>	1000 ± 75 G/cm <sup>2</sup>

### Typical Analysis

#### Inorganics (%)

Calcium	0.179	Nitrate	< 0.005
Chloride	0.021	Phosphate	< 0.005
Cobalt	<0.001	Potassium	0.121
Copper	< 0.001	Sodium	0.837
Iron	0.002	Sulfate	1.778
Lead	< 0.001	Sulfur	0.841

Magnesium	0.068	Tin	< 0.001
Manganese	< 0.001	Zinc	< 0.001

### Reference

1. United States Pharmacopeial Convention, Inc. 2008. The United States pharmacopeia 31/The national formulary 26, Supp. 1, 8-1-08, online. United States Pharmacopeial Convention, Inc., Rockville, Md.
2. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

### Product Presentation:

<b>Cat No.</b>	<b>Product description</b>	<b>Pack Size</b>
202010400500	Agar Agar, Bacteriological Grade	500 g
202010402500	Agar Agar, Bacteriological Grade	2.5 k
202010409925	Agar Agar, Bacteriological Grade	25 k (Bag)
202010409825	Agar Agar, Bacteriological Grade	25 k (Drum)

### Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.

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