

Agar Agar; Type I

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

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

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:

Cat No.	Product description	Pack Size
202010390500	Agar Agar; Type I	500 g
202010392500	Agar Agar; Type I	2.5 k
202010399925	Agar Agar; Type I	25 k (Bag)
202010399825	Agar Agar; Type I	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.
