

## 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

#### 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:**

35°C – 45°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:**

87°C - 93°C

**Total microbial count:**

Less than 1000 cfu/g

***E. coli*:**

Absent

***Salmonella*:**

Absent

***Pseudomonas aeruginosa*:**

Absent

***Staphylococcus aureus*:**

Absent

**Gel strength (1.5% gel, at 20° C):**

850 - 950 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:

Cat No.	Product description	Pack Size
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)

	Temperature Limit		Manufacturer		Lot Number		Hygroscopic keep container tightly closed		Date of Manufacture		Catalogue Number		Consult Instructions for use		Use-by Date		Received on		Opened on
---	-------------------	---	--------------	---	------------	---	---	---	---------------------	---	------------------	--	------------------------------	---	-------------	---	-------------	---	-----------

Revision: 1025/VER-03

## 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.