



## Agar Granulated

RM10848

### Principle And Interpretation

Agar Granulated, is recommended for culture media, disc diffusion susceptibility test where salts have been reduced to minimum. It is also suitable for electrophoretic and immunodiffusion assay including Vitamin assays and tissue culture work.

### Quality Control

#### Appearance

Cream coloured coarse, free flowing powder.

#### Solubility

Freely soluble in hot water at temperatures above 85°C. Insoluble in cold water.

#### Clarity

A firm solid, clear to slightly opalescent gel is formed at a concentration of 1.5% at 34-37°C.

#### Dye Diffusion

Agar dye diffusion :- 18-20mm

#### Reaction

Reaction of 1.5% w/v aqueous solution at 25 °C

#### pH

6.50 - 7.50

#### Identification test

As per method specified in USP 37, NF32;

A: Infrared absorption.

B: With Iodine, some fragments of agar appear bluish black, with some areas reddish to violet.

C: Agar forms a clear liquid, which congeals at 30 to 39°C to form a firm resilient gel, which does not melt below 80°C.

#### Microbial Load

##### Total aerobic microbial count (cfu/gm)

By plate method when incubated at 30-35°C for not less than 3 days.

Total aerobic microbial count :  $\leq 1000$  CFU/gram

##### Total Yeast and mould count (cfu/gm)

By plate method when incubated at 20-25°C for not less than 5 days.

Total yeast & mould Count :  $\leq 100$  CFU/gram

#### Test for Pathogens

1. E.coli-Negative in 10 gms of sample 2. Salmonella species-Negative in 10 gms of sample 3. Pseudomonas aeruginosa-Negative in 10 gms of sample 4. Staphylococcus aureus- Negative in 10 gms of sample 5. C.albicans- Negative in 10 gms of sample 6. Clostridia- Negative in 10 gms of sample

#### Test for Water absorption

As per method specified in USP 37, NF32 NMT 75 ml of water is absorbed by 5.0 g of agar

#### Test for Gelatin

As per method specified in USP 37, NF32 No formation of yellow precipitate

#### Test for Starch

As per method specified in USP 37, NF32 No Formation of blue colour on addition of iodine

#### Growth Promotion Test

As per method specified in USP 37, NF32

**Chemical Analysis****Gelling temperature**

34 - 37°C

**Melting range**

&gt;=85°C

**Water(KF)**

&lt;=20%

**Calcium**

&lt;= 25 ppm

**Heavy metals (as Pb)**

&lt;= 40 ppm

**Lead**

&lt;= 10 ppm

**Arsenic**

&lt;= 3 ppm

**Total ash**

&lt;=6.5%

**Acid insoluble matter (on dry basis)**

&lt;=0.5%

**Foreign organic matter**

&lt;=1.0%

**Foreign insoluble matter**

&lt;=15 mg in 7.5 gm of Agar

**Cultural Response**

Cultural response observed after an incubation at 35-37°C for 18-24 hours by preparing Nutrient Agar (M001) using Agar Granulated as an ingredient.

<b>Organism</b>	<b>Growth</b>
<i>Escherichia coli</i> ATCC 25922	Luxuriant
<i>Pseudomonas aeruginosa</i> ATCC 27853	Luxuriant
<i>Staphylococcus aureus</i> ATCC 25923	Luxuriant
<i>Salmonella Typhi</i> ATCC 6539	Luxuriant
<i>Streptococcus pyogenes</i> ATCC 19615	Luxuriant

**Storage and Shelf Life**

Store below 30°C. Use before expiry date on the label.

**Disclaimer :**

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