

## Technical Information

### Plate count Agar, Special

#### Product Code: DM 2025

**Application:** - Plate count Agar, Special is used for estimation of microbial counts in raw milk and other dairy products as per Netherlands Dairy Association.

#### Composition\*\*

Ingredients	Gms / Litre
Casein enzymic hydrolysate	6.130
Yeast extract	3.060
Dextrose	1.230
Agar	30.100
Final pH ( at 25°C)	7.0±0.2

\*\*Formula adjusted, standardized to suit performance parameters

#### Principle & Interpretation

Plate Count Agar, special is used for the enumeration of viable bacteria in raw milk, milk and other dairy products <sup>(1)</sup>. Casein enzymic hydrolysate provides amino acids and other complex nitrogenous substances. Yeast extract supplies Vitamin B-complex. Generally pour plate technique is followed. The samples are diluted and appropriate dilutions are placed in Petri plates. Sterile molten agar is added to these plates and plates are rotated gently to ensure uniform mixing of the sample with agar.

#### Methodology

Suspend 40.5 grams of powder media in 1000 ml distilled water. Shake well & heat to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 20 minutes. Mix well and pour into sterile Petri plates.

#### Quality Control

##### Physical Appearance

Cream to yellow homogeneous free flowing powder

##### Gelling

Firm, comparable with 3.0 1% Agar gel

##### Colour and Clarity of prepared medium

Light yellow coloured clear to slightly opalescent gel forms in Petri plates

##### Reaction

Reaction of 4.05% w/v aqueous solution at 25°C. pH : 7.0±0.2

pH range 6.80-7.20

##### Cultural Response/ characteristics

DM 2025: Cultural characteristics observed after an incubation at 35-37°C for 18-48 hours.

Organism	Inoculum (CFU)	Growth	Recovery
<i>Bacillus subtilis</i> ATCC 6633	$\geq 10^3$	luxuriant	$\geq 70\%$
<i>Lactobacillus casei</i> ATCC 9595	$\geq 10^3$	luxuriant	$\geq 70\%$
<i>Staphylococcus aureus</i> ATCC 25923	50-100	luxuriant	$\geq 70\%$
<i>Streptococcus pyogenes</i> ATCC 19615	50-100	luxuriant	$\geq 70\%$



Dehydrated Culture Media  
Bases / Media Supplements

## Storage and Shelf Life

**Dried Media:** Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.

**Prepared Media:** 2-8° in sealable plastic bags for 2-5 days.

## Further Reading

1. Atlas R.M., 1993, Handbook of microbiological Media, CRC Press, Inc..

## Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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