Technical Data Sheet

Plate Count Agar with Skim Milk

Ordering number: 1.46405.0006

For determination of the total microbial content from milk and dairy products.

General

The formulation of this culture medium complies with the specifications given by EN ISO 4833, ISO 6730 I IDF 101, ISO 8552 I IDF 132, ISO 17410 and APHA (SMA with skimmed milk: Standard Methods Agar with skimmed milk).

Plate Count skimmed milk agar is also named as Tryptone Glucose Yeast Skimmed milk agar or Casein-peptone Dextrose Yeast skimmed milk agar.

Mode of Action

This medium does not contain any inhibitors or indicators and it is relatively rich in its nutrients. Also the added skimmed milk is free from inhibitory substances. The enzymatic digest of casein (tryptone) is a nitrogen source containing a high level of free amino acids and yeast extract primarily supplies the B-complex vitamins. Glucose provides an energy source for the growth of bacteria whilst agar is the solidifying agent.

Typical Composition (g/l)

Casein Peptone	5
Yeast Extract	2.5
Glucose	1
Skim Milk	1
Agar	12

The appearance of the medium is clear and slightly yellowish. The pH value is in the range of 6.8-7.2. The medium can be adjusted and/or supplemented according to the performance criteria required.

Application and Interpretation

The medium can be melted by placing in a boiling water bath as specified in ISO 11133. *Note: Avoid over heating the medium. Remove it from the water bath once melted.* Transfer the molten medium in a thermostatically controlled water bath. Maintain temperature from 47°C to 50°C. It is recommended to use the medium as soon as possible.

Depend on the purpose for which the medium is used. Incubate the inoculated plates under aerobic conditions. e.g. acc. to EN ISO 4833 at 30 ± 1 °C for 72 h ± 3 h or acc. to ISO 17410 at 6,5 ± 1 °C for 10 days.

Acc. to APHA (Test on Proteolytic Microorganisms – Skim milk agar method) at 32 ± 1 °C for 48-72 h or for increased recovery of psychrotrophic bacteria, 21 ± 1 °C for 72 h.

Storage and Shelf Life

The product can be used for sampling until the expiry date if stored upright, protected from light and properly sealed at +2 °C to +25 °C.

The testing procedures as described on the CoA can be started up to the expiry date printed on the label.

Disposal

Please mind the respective regulations for the disposal of used culture medium (e.g. autoclave for 20 min at 121 °C, disinfect, incinerate etc.).

Quality Control

Function	Incubation	Control Strains	Inoculum CFU	Criteria (% Recovery)
Productivity	24-48 h at 29-31 °C	Staphylococcus aureus ATCC® 6538	10-100	70-200 %
		Escherichia coli ATCC® 8739		
		Pseudomonas aeruginosa ATCC® 9027		
		Bacillus subtilis ATCC® 6633		
		Candida albicans ATCC® 10231		
		Streptococcus agalactiae ATCC® 624		

Please refer to the actual batch related Certificate of Analysis.

Literature

ISO International Standardisation Organisation. Microbiology of the food chain -- Horizontal method for the enumeration of microorganisms - Part 1: Colony count at 30 °C by the pour plate technique. EN ISO 4833-1:2013.

ISO International Standardisation Organisation. Microbiology of the food chain -- Horizontal method for the enumeration of microorganisms - Part 2: Colony count at 30 °C by the surface plating technique. EN ISO 4833-1:2013.

ISO International Standardisation Organisation. Milk -- Enumeration of colony-forming units of psychrotrophic microorganisms -- Colony-count technique at 6,5 °C. ISO 6730 I IDF 101:2005.

ISO International Standardisation Organisation. Milk -- Estimation of psychrotrophic microorganisms -- Colony-count technique at 21 °C (Rapid method). ISO 8552 I IDF 132:2004.

ISO International Standardisation Organisation. Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of psychrotrophic microorganisms. ISO 17410:2001.

ISO International Standardisation Organisation. Microbiology of food, animal feed and water - Preparation, production, storage and performance testing of culture media. EN ISO 11133:2014.

APHA (2004) Standard Methods for the Examination of Dairy Products. 17th ed. American Public Health Association, Washington, D.C.

Ordering Information

Product	Cat. No.	Pack size	Other Packaging size available
Plate Count Agar with Skim Milk	1.46405.0006	6 x 200 ml bottle	
Granucult™ Plate Count skimmed milk agar acc. ISO 4833 and ISO 17410	1.15338.0500	500g	
Plate Count Agar in 400ml Bottle	1.46363.0006	6 x 400ml bottle	6 x 200ml bottle
Granucult™ Plate Count agar acc. ISO 4833, ISO 17410 and FDA-BAM	1.05463.0500	500g	5Kg
Skim Milk powder for microbiology	1.15365.0500	500g	

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