

Skim Milk

Cat. 0230

Skim milk is a source of lactose and casein and it may be added to different media for the cultivation and differentiation of microorganisms based on the coagulation and proteolysis of casein.

Practical information

Applications	Categories
Detection	Proteolytic microorganisms
Detection	Lactose fermenters

Industry: Clinical / Food / Dairy products / Ingredients for culture media / Manufacturing process

Regulations: ISO 6611

Principles and uses

Skim Milk is used for preparing microbiological culture media as the Skim Milk Agar for detecting proteolytic microorganisms in food, including dairy products. When the powder is prepared in a 10% solution, this is equivalent to fresh skim milk which is a source of lactose and casein and other nutrients required for the growth of lactobacilli. Clostridial species can be differentiated based on their ability to enzymatically degrade proteins to peptones or coagulate milk.

It can also be used to prepare Litmus Milk, a differential test medium for determining lactose fermentation and for detecting proteolytic enzymes that hydrolyze casein (milk protein) and cause coagulation (clot formation).

Preparation:

Suspend 100 g of powder in 1 L of distilled water. Mix well and dissolve by heating with frequent agitation. May be sterilized by autoclaving for 5 minutes at 121 °C. Care should be taken not to overheat during sterilization, otherwise, caramelization will occur.

Physical-chemical characteristics

Description	Specification
Moisture	<10%

Microbiological test

Description	Specification
Coliforms	Negative
Standard plate count	<5.000 CFU/g
Yeast and molds	<100 CFU/g
Salmonella	Negative

Storage

Temp. Min.: 2 °C
Temp. Max.: 25 °C