Bile Salts Mixture

RM009

Bile Salt Mixture is recommended for use is microbiological culture media for selective isolation and cultivation of bile tolerant enteric bacteria.It is recommended for use in MacConkey Agar, SS Agar, Violet Red Bile Agar. It selectively inhibits gram-positive and spore bearing microorganisms without interfering with the growth of enteric bacilli. In MacConkey Agar, Violet Red Bile Agar and SS Agar, very little precipitate is observed around coliform colonies facilitating the detection of lactose nonfermenting colonies.

Principle And Interpretation

Bile Salts Mixture is obtained by hydrolysis of bile salts. It is equivalent to Bile Salt No.3,for use in Bacteriological culture media as selective inhibitory agent.It is a white coloured, free flowing, fine powder. It is freely soluble in water and forms a colourless, clear solution that produces foam if shaken strongly.

Quality Control

Appearance
White to cream Homogenous Free flowing powder ,having Characteristic odour but not putrescent.

Solubility
Soluble in distilled water, insoluble in alcohol and ether.

Clarity
1% aqueous solution is light straw coloured, clear and free from extraneous matter.

Reaction
Reaction of 1% w/v aqueous solution at 25ºC.

pH
7.00- 9.00

Cultural response
Cultural response observed after an incubation at 35-37ºC for 18-24 hours by preparing MacConkey Agar (M081), using Bile Salt Mixture as an ingredient.

Cultural Response

Organism	Growth	Colour of colony
Cultural response		
Escherichia coli ATCC 25922	Luxuriant	Pink to red with bile precipitate
Enterobacter aerogenes ATCC 13048	Luxuriant	Pink to red
Enterococcus faecalis ATCC 29212	Fair to good	Colourless to pink
Proteus vulgaris ATCC 13315	Luxuriant	Colourless
Salmonella Paratyphi A ATCC 9150	Luxuriant	Colourless
Shigella flexneri ATCC 12022	Fair to good	Colourless
Salmonella Paratyphi B ATCC 8759	Luxuriant	Colourless

Salmonella Enteritidis ATCC 13076	Luxuriant	Colourless
Salmonella Typhi ATCC 6539	Luxuriant	Colourless
Staphylococcus aureus ATCC 25923	Inhibited	

Chemical Analysis

Cholic acid Content	>= 45.0%
Loss on drying	<= 6.0%

Storage and Shelf Life

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