CM 22659 - MACCONKEY AGAR W/ 0.15% BILE SALTS, CV AND NACL (USP/EP/BP/JP/IP)

INTENDED USE

For the selection and subculture of *E.coli* in accordance with harmonized method.

PRODUCT SUMMARY AND EXPLANATION

MacConkey agars are slightly selectiveanddifferential plating media mainly used for the detection and isolation of gram negative organisms from clinical,dairy,food,water, pharmaceutical and industrial sources. It is also recommended for the selection and recovery of theEnterobacteriaceae and related enteric gram-negative bacilli. USP recommends this medium for use in the performanceofMicrobial Limit Tests.

The medium corresponds with,thatrecommended by APHA can be used for the direct plating of water samples for coliform bacilli, for the examinationoffoodsamples for food poisoning organisms and for the isolation of *Salmonella* and *Shigella* species in cheese. Otherthanthat,this medium is also used for count of coli-aerogenes bacteria in cattle and sheep faeces, the count of coli-aerogenesandnon-lactose fermenters in poultry carcasses, bacterial counts on irradiated canned minced chicken and therecognitionofcoli-aerogenes bacteria during investigations on the genus *Aeromonas*. Lactose fermenting strains growasredorpinkand may be surrounded by a zone of acid precipitated bile. The red colour

is due to production of acid fromlactose,absorption of Neutral red and a subsequent colour change of the dye when the pH of medium falls below 6.8.Lactosenon-fermenting strains, such as *Shigella* and *Salmonella* are colourless and transparent and typically do notalterappearance of the medium.

COMPOSITION

Ingredients	Gms / Ltr
Pancreatic digest of gelatin	17.000
Agar	15.000
Lactose	10.000
Sodium chloride	5.000
Peptic digest of animal tissue	1.500
Casein enzymic hydrolysate	1.500
Neutral red	0.030
Crystal violet	0.001

PRINCIPLE

Pancreaticdigest of Gelatin isthe nitrogen and vitamin sources in MacConkey Agar. Lactose Monohydrate is the fermentable carbohydrate withNeutral red serving as the pH indicator. Lactose fermenting strains grow as red or pink colonies and may be surrounded by a zone of acid precipitated bile. The red colour is due to production of acid from lactose, absorption of neutral red and a subsequent colour change of the dye when the pH of medium falls below 6.8. Lactose non fermenting strains, such as *Shigella* and *Salmonella* are colourless, transparent and typically do not alter appearance of the medium. Sodium chloride maintains the osmotic balance. Agar is the solidifying agent. Bile salts mixture and Crystal violet are the selective agents, inhibiting Grampositive cocci and allowing Gram-negative organisms to grow.

INSTRUCTION FOR USE

1. MacConkey Agarisa ready to use solid media in glass bottle. The medium is pre-sterilized, hence sterilization is not required.
2. Prior to use, medium in the bottle can be melted either by using a pre-heated water bath or any other method.
3. Slightly loosenthecap before melting.

4. Pour liquefied agar into each plate as desired and allow them to solidify at room temperature. Plates are now ready to inoculate or refrigerate for later use.

QUALITY CONTROL SPECIFICATIONS

Appearance	:	Red with purplish tinge color, clear to slightly opalescent gel.
Quantity of Medium	:	100 ml of the media in glass bottle.
pH (at 25°C)	:	7.1± 0.2
Sterility Check	:	Passes release criteria

INTERPRETATION

GrowthPromotioniscarried out in accordance with the harmonized method of USP/EP/BP/JP. Cultural response was observed after incubation at 30-35°C for 18-24 hours. Recovery rate is considered 100% for bacteria growth on Soya Agar

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Colony Appearance	Incubation Temperature	Incubation Period
Escherichia coli	25922	50-100	Luxuriant	>=70%	Pink to red colour with bile ppt	30-35°C	18-24 Hours
Escherichia coli	8739	50-100	Luxuriant	>=70%	Pink to red colour with bile ppt	30-35°C	18-24 Hours
Enterobacter aerogenes	13048	50-100	Luxuriant	>=70%	Pink to red colour	30-35° C	18-24 Hours
Enterococcus faecalis	29212	50-100	Poor-Inhibited	0-10%	Colourless to Pale pink	30-35 °C	18-24 Hours
Salmonella typhimurium	14028	50-100	Luxuriant	>=70%	Colourless	30-35°C	18-24 Hours
Proteus vulgaris	13315	50-100	Luxuriant	>=70%	Colourless	30-35°C	18-24 Hours
Shigella flexneri	12022	50-100	Fair to good	20-40%	-	30-35°C	18-24 Hours
Staphylococcus aureus	6538	≥ 1000	Inhibited	-	-	30-35°C	18-24 Hours
Staphylococcus epidermidis	12228	≥ 1000	Inhibited	-		30-35°C	18-24 Hours

PACKAGING

100mlglassbottle.

STORAGE

On receipt, store bottles in the dark at 10 to 25° C. Avoid freezing and overheating. The medium may be used up to the expiration date and incubated for the recommended incubation times. Bottles from unopened packages can be used up to the expiration date. Opened bottles must be used immediately. To prepare plates or tubes from the bottled medium, it must first be liquefied. Do not liquefy any leftovers for a second time

Product Deterioration: Do not use bottles if they show evidence of microbial contamination, discoloration, or any other signs of deterioration.

DISPOSAL

Afteruse,prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

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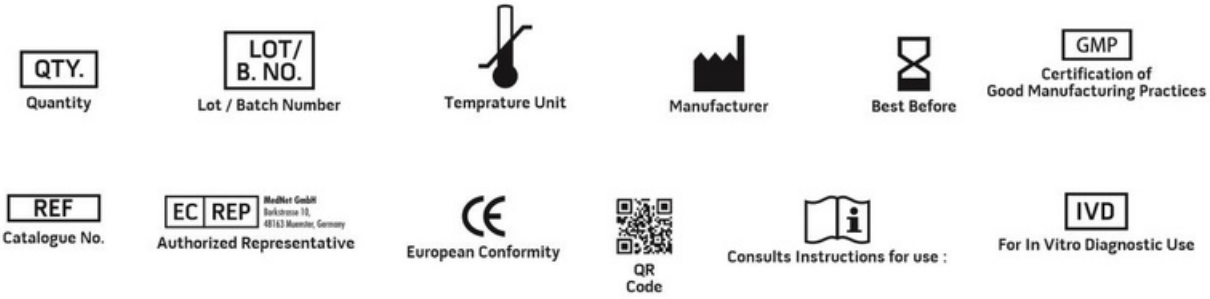

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***ForLabUseOnly**