CM 20197 - β -STREPTOCOCCUS SELECTIVE AGAR BASE

INTENDED USE

For the isolationof beta-haemolytic Streptococci from clinical specimens heavily contaminated with other bacteria.

PRODUCT SUMMARY AND EXPLANATION

Themajority of ß-haemolytic streptococci causing infections in man belong to group A and are given the species name of Streptococcus pyogenes. This pathogen causes a variety of inflammatory and suppurative conditions such as sore throat, scarlet fever, cellulites, wound infections, erysipelas, impetigo, puerperal fever, otitis media, septicemia and necrotizing fasciitis. It is also found in the throat or nasal cavity. ß-Streptococcus Selective Agar Base was described by Liebermeister and Braveny for isolating ß-haemolytic streptococci. This medium proves to be a nutritionally limiting medium for the accompanying flora, so that their growth is markedly reduced. ß-haemolytic streptococci also show reduced colony size but exhibit distinct ß-haemolysis. This medium gives higher yields of ß -haemolytic streptococci than the regularly used blood agar.

COMPOSITION

Ingredients	Gms / Ltr
Meat peptone	1.000
Meat extract	0.600
Yeast extract	0.500
L-Lysine	0.020
Sodium chloride	6.000
Disodium hydrogen phosphate	2.000
Agar	15.000

PRINCIPLE

Theß-haemolysis of streptococci, producing a greenish discoloration is restricted on this medium. Yeast extract and lysine promote the haemolytic action of ß-haemolytic streptococci. Meat extract and meat peptone serve as sources of carbon, nitrogen and essential growth factors. Sodium chloride maintains the osmotic equilibrium of the medium whereas disodium hydrogen phosphate buffers the medium.

INSTRUCTION FOR USE

Dissolve 25.12 gramsin 1000 ml distilled water.
Heatto boiling to dissolve the medium completely.
Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
Coolto 45°C and add 7-10% sheep blood.
Mixwell and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium	: Basal medium yields light amber coloured clear to slightly opalescent gel. On addition of 7-10% v/v sterile sheep blood cherry red coloured opaque gel forms in Petri plates.
pH (at 25°C)	: 7.3±0.2

INTERPRETATION

Culturalcharacteristics observed after an incubation with added 7-10% v/v sterile defibrinated blood.

Microorganism	ATCC	Inoculum (cfu/ml)	Growth	Recovery	Beta-haemolysis	Incubation Temperature	Incubation Period
Bacillus cereus	11778	50-100	Fair-good	20-40 %	Positive	35-37°C	18-48 Hours
Pseudomonas aeruginosa	27853	50-100	Fair-good	20-40 %	Positive	35-37°C	18-48 Hours
Enterococcus hirae	8043	50-100	Fair-good	20-40 %	Negative	35-37°C	18-48 Hours
Streptococcus agalactiae	13813	50-100	Fair-good	20-40 %	Negative	35-37°C	18-48 Hours
Staphylococcus aureus	25923	50-100	Fair-good	20-40 %	Negative	35-37°C	18-48 Hours
Streptococcus pyogenes	12344	50-100	Fair-good	20-40 %	Positive	35-37°C	18-48 Hours
Enterococcus faecalis	11700	50-100	Fair-good	20-40 %	Negative	35-37°C	18-48 Hours

PACKAGING:

Inpacksizeof500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

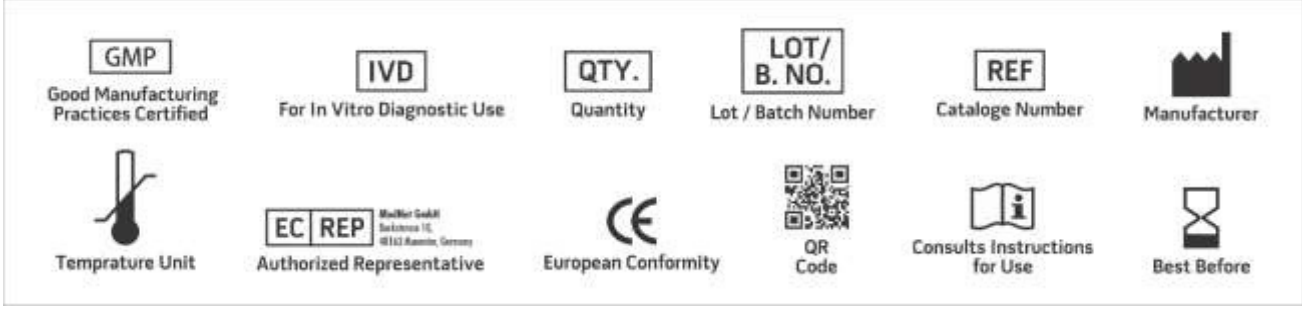
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

1. ColleeJ.G., Fraser A. G., Marmion B. P., Simmons A., (Eds.), Mackie and McCartney, Practical Medical Microbiology, 14th Edition, 1996, Churchill Livingstone
2. Bernheimer A. W., Rodbart M., 1948, J. Exp. Med, 88; 149
3. Liebermeister K., Braveny J., 1971 Z. med. Mikrobiol. u. Immunol, 156, 149 -1534. Okamoto H., Kyoda S., Ito R., 1939, Jap. J. Med. Sci, VI Pharmacol, 12, 167.



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

*For LabUse Only