CM 20518 – CRYSTAL VIOLET LACTOSE AGAR

INTENDED USE

For differentiation of pure cultures of pathogenic and nonpathogenic Staphylococci.

PRODUCT SUMMARY AND EXPLANATION

CrystalVioletLactose Agar wasrecommended by Chapman for the differentiation of pure cultures of pathogenic from nonpathogenic strains of Staphylococci. The toxicity of Staphylococci is estimated on the basis of their pigment production, haemolytic and coagulating characteristic. In the study of the correlation between haemolytic and coagulase activities, animal inoculation and other tests, Chapman and Berens reported that Staphylococci produced different coloured growths when cultured on Crystal Violet Agar. Haemolytic and coagulating strains produced purple to violet colour whereas non-hemolytic and non-coagulating strains produced white colonies after incubation. Crystal violet inhibits most of the gram-positive organisms and is markedly inhibitory to Staphylococci. A fair growth can be obtained at a 1: 300,000 concentration of the dye when the medium is inoculated heavily. So, this medium is used for study of pure cultures where a mass inoculation can be used rather than for primary isolation.

COMPOSITION

Ingredients	Gms / Ltr
Proteose peptone	5.000
Beef extract	3.000
Lactose	10.000
Crystal violet	0.0033
Agar	15.000

PRINCIPLE

The media contains proteose peptone and beef exract as sources of carbon, nitrogen, vitamins and minerals. Lactose is the carbon and energy source.

INSTRUCTIONFOR USE

Dissolve 33 grams in1000 ml purified / distilled water.
Heat to boiling to dissolve the medium completely.
Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Cool to 45-50°C.
Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Light yellow to light tan homogeneous free flowing powder.
Appearance of prepared medium	: Light purple coloured, clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C)	: 6.8±0.1

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Colour of colony	Incubation Temperature	Incubation Period
Escherichia coli	25922	50-100	Luxuriant	>=70%	Purple	35-37°C	40-48 Hours
Staphylococcus aureus subsp. aureus	25923	50-100	Fair-good	20-40%	Light yellow	35-37°C	40-48 Hours
Staphylococcus epidermidis	12228	50-100	Fair-good	20-40%	Purple/ very slightly	35-37°C	40-48 Hours
Streptococcus pyogenes	19615	50-100	None-poor	0-10%	Colourless	35-37°C	40-48 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.

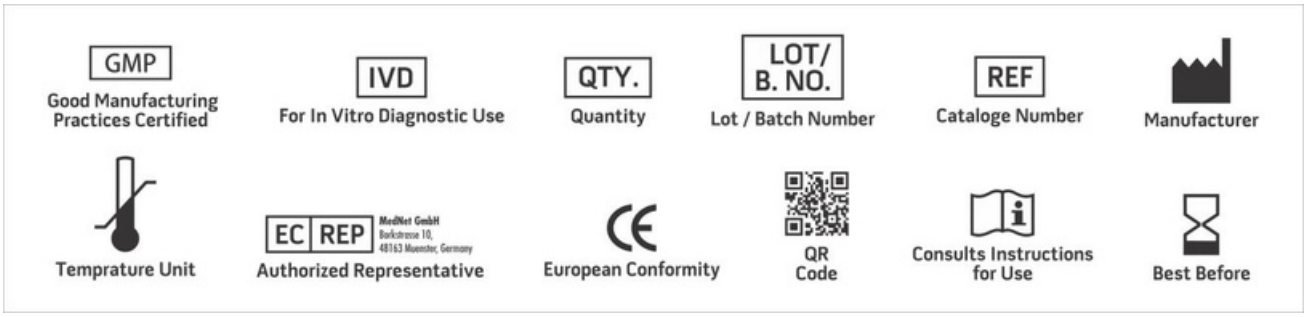
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

1. Chapman, 1936,J. Bact., 32:199.
2. Chapman, Berens. Peters and Curcio, 1934, J. Bact., 28:343.
3. Chapman and Berens, 1935, J. Bact., 29:437.



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

*For LabUse Only