



TMV 054 – C.L.E.D. AGAR W/ ANDRADE INDICATOR (CYSTINE LACTOSE ELECTROLYTE DEFICIENT AGAR) (VEG.)

INTENDED USE

For isolation and differentiation of microorganisms based on lactose fermentation.

PRODUCT SUMMARY AND EXPLANATION

C.L.E.D. Veg Agar with Andrade Indicator is specially developed using Veg peptone, Veg hydroysate and Veg extract to avoid BSE/TSE risks associated with animal origin peptones. Originally Mackey and Sandys devised C.LE.D. medium with lactose, L-Cystine and BTB for growing urinary pathogens. C.L.E.D. Veg Agar with Andrade Indicator is the modification of this medium and is recommended for urinary bacteriology, supporting the growth of all urinary pathogens and giving good colonial differentiations. Veg peptone, Veg hydrolysate and Veg extract provide essential growth nutrients. Lactose is the fermentable sugar. L-Cystine supports the growth of cystine-dependent coliforms. Bromothymol blue is the pH indicator which turns yellow at acidic pH. Addition of Andrade's indicator, enhances the appearance of colony and aids in the identification of microorganisms. At different pH values, the colour of the medium varies from the standard medium, which is well documented by Bevis.

COMPOSITION

Ingredients	Gms / Ltr		
Veg Peptone	4.000		
Veg extract	3.000		
Veg hydrolysate	4.000		
Lactose	10.000		
L-Cystine	0.128		
Bromothymol blue	0.020		
Andrade indicator	0.100		
Agar	15.000		

PRINCIPLE

The essential nutrients are supplied by veg peptone, veg hydrolysate. Lactose is the carbohydrate source. L-cystine permits the growth of "dwarf colony" coliforms. Addition of Andrade indicator the appearance of colony and aids in the identification of microorganisms. At different pH values, the colour of the medium varies from the standard medium.

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INSTRUCTION FOR USE

- Dissolve 36.25 grams in 1000 ml of 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

A- 902A, RIICO Industrial Area, Phase III, Bhiwadi-301019.



Appearance of Powder	: Greyish yellow coloured, may have			
	flowing powder.			
Appearance of prepared medium	: Greenish blue coloured, clear to s			
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e slightly greenish tinge, homogeneous, free

ŀ pH (at 25°C)

ightly opalescent gel forms in petri plates. : 7.5±0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	lnoculum (CFU/ml)	Growth	Recovery	Colour of colony	Incubation Temperature	Incubation Period
Enterobacter aerogenes	13048	50-100	Luxuriant	>=70%	Greyish green, mucoid	35-37°C	18-24 Hours
Escherichia coli	25922	50-100	Luxuriant	>=70%	Bright pink with pink halo	35-37°C	18-24 Hours
Enterococcus faecalis	29212	50-100	Luxuriant	>=70%	Orange-yellow or greenish	35-37°C	18-24 Hours
Proteus mirabilis	25933	50-100	Luxuriant	>=70%	Blue-green	35-37°C	18-24 Hours
Staphylococcus aureus	25923	50-100	Luxuriant	>=70%	Golden-yellow	35-37°C	18-24 Hours
Streptococcus pyogenes	19615	50-100	Luxuriant	>=70%	Greyish-green	35-37°C	18-24 Hours

PACKAGING:

In pack size of 100 gm and 500 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

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

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REFERENCES

- 1. Mackey and Sandys, 1965, Br. Med J. 2:1286.
- 2. Mackey and Sandys, 1966, Br. Med J. 1:1173.
- 3. Bevis T.D., 1968, J. Med. Lab. Technol., 25:38.





NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices. *For Lab Use Only Revision: 08 Nov., 2019

