

## TMP 004 K – LURIA BERTANI AGAR PLATE (W/100ug/ml KANAMYCIN)

### INTENDED USE

For the cultivation and maintenance of recombinant strains of *E.coli* for genetic and molecular studies.

### PRODUCT SUMMARY AND EXPLANATION

Luria Bertani Agar is prepared as described by Lennox for cultivation and maintenance of recombinant strains of *Escherichia coli*. Luria Bertani Agar, Miller is slightly different with double amount of sodium chloride. The media is nutritionally rich for the growth of pure cultures of recombinant strains. Strains derived from *Escherichia coli* K12 are deficient in Vitamin B synthesis are further modified by specific mutation to create auxotrophic strains and are therefore unable to grow on nutritionally deficient media.

### COMPOSITION

Ingredients	Gms / Ltr
Agar	15.000
Yeast Extract	5.000
Sodium chloride	10.000
Tryptone	10.000
Kanamycin	0.100

### PRINCIPLE

Tryptone provides peptides and peptones while Vitamin B complex is provided by yeast extract. Sodium chloride provides sodium ions for membrane transport and also maintains the osmotic equilibrium of the medium.

### INSTRUCTION FOR USE

Either streak, inoculate or surface spread the test inoculum aseptically on the plate.

### QUALITY CONTROL SPECIFICATIONS

Appearance	:	Yellow to amber coloured medium
Quantity of Medium	:	25ml of medium in 90mm plates.
pH (at 25°C)	:	7.5 ± 0.2
Sterility Check	:	Passes release criteria

### INTERPRETATION

Cultural response was observed after incubation.

Microorganism	Strain	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
<i>Escherichia coli</i> DH5 alpha	MTCC 1652	50-100	Inhibited	-	35-37°C	18-24 Hours
<i>Escherichia coli</i> BL21	MTCC 1679	50-100	Inhibited	-	35-37°C	18-24 Hours
<i>Escherichia coli</i> BL21 (Transformed strain)	MTCC 1679	50-100	luxuriant	>=70%	35-37°C	18-24 Hours
<i>Escherichia coli</i>	MTCC	50-100	luxuriant	>=70%	35-37°C	18-24 Hours



DH5 alpha (Transformed strain)	1652					
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**PACKAGING:**

Doubled layered packing containing 5 No. of plates with one silica gel desiccant bag packed inside it.

**STORAGE**

On receipt, store the plates at 2-8°C. Avoid freezing and overheating. Do not open until ready to use. Prepared plates stored in their original sleeve wrapping until just prior to use may be inoculated up to the expiration date and incubated for recommended incubation times. Allow the medium to warm to room temperature before inoculation.

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

**DISPOSAL**

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

**REFERENCES**

1. Atlas R.M., 1993, Handbook of Microbiological Media, Ed. by Parks L., CRC Press, Inc
2. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition
3. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol.
4. Lennox E.S., 1955, Transduction of Linked Genetic Characters of the host by bacteriophage P1, Virology, 1:190.).



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

**\*For Lab Use Only**  
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