TM 1315 – WURTZ MEDIUM

INTENDED USE
For isolation and differentiation of lactose fermenting bacteria.

PRODUCT SUMMARY AND EXPLANATION
The family *Enterobacteriaceae* consists of a large group of organisms all of which ferment glucose. Those, which ferment lactose, are grouped together as "coliform bacteria". Pathogenic serotypes of *Escherichia coli* present a particular problem and their isolation has always been a difficult process.
Wurtz Medium is a non-selective medium employed for the growth, and the differentiation of *Enterobacteriaceae* from clinical samples, especially when suspected with the presence of pathogenic *E. coli*.

COMPOSITION

Ingredients	Gms / Ltr
Meat peptone	5.000
Beef extract	3.000
Sodium chloride	5.000
Lactose	10.000
Bromo thymol blue	0.075
Agar	15.000

PRINCIPLE
The medium consists of meat peptone and beef extract, which provide essential growth nutrients. Lactose is the fermentable sugar and bromothymol blue acts as pH indicator. Lactose fermenters form yellow coloured colonies, while the lactose-non fermenting *Enterobacteriaceae* grows as blue colonies due to the alkalization of the medium.

INSTRUCTION FOR USE
- Dissolve 38.08 grams in 1000 ml purified/distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Mix well and pour into sterile petri plates.

QUALITY CONTROL SPECIFICATIONS
Appearance of Powder : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Green coloured clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 7.0 ± 0.2

INTERPRETATION
Cultural characteristics observed after incubation.

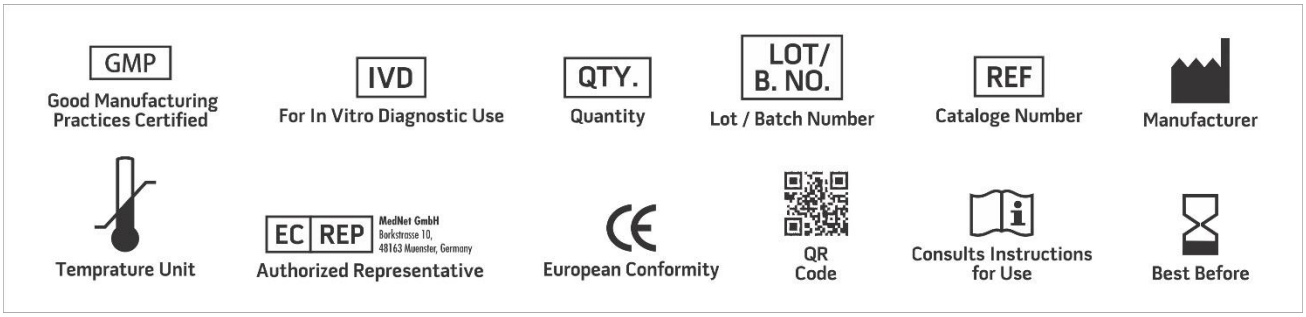
Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Colour of colony	Incubation Temperature	Incubation Period
Escherichia coli	25922	50-100	Luxuriant	>=70%	Yellow	35-37°C	18-24 Hours
Klebsiella pneumoniae	13883	50-100	Luxuriant	>=70%	Yellow	35-37°C	18-24 Hours
Proteus vulgaris	13315	50-100	Luxuriant	>=70%	Blue	35-37°C	18-24 Hours
Salmonella Typhi	6539	50-100	Luxuriant	>=70%	Blue	35-37°C	18-24 Hours
Salmonella Enteritidis	13076	50-100	Luxuriant	>=70%	Blue	35-37°C	18-24 Hours
Shigella flexneri	12022	50-100	Luxuriant	>=70%	Blue	35-37°C	18-24 Hours

PACKAGING:
In pack size of 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.

REFERENCES
1. Corry J. E. L., Curtis G. D. W. and Baird R. M., (Eds.), Culture Media for Food Microbiology, Vol. 34, Progress in Industrial Microbiology, 1995, Elsevier, Amsterdam.



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

***For Lab Use Only**

Revision: 08 Nov., 2019