TM 2175 - M9 MINIMAL MEDIUM SALT (5X)

INTENDED USE

For growing *Escherichia coli* for molecular biology purpose.

PRODUCT SUMMARY AND EXPLANATION

M9 Minimal Salts, 5x is used in preparing M9 Minimal medium used for the cultivation and maintenance of *E. coli* in molecular biology. M9 is a chemically defined minimal growth medium for *E. coli* cultures. It can be supplemented with specific amino acids or other required nutrients for the selection of some specific auxotroph. Sometimes the incorporation of certain additives (e.g. thiamine or casamino acids) enhances the bacterial growth. In 1959, Jacob and Monod published an article where they discussed about minimal media of *E. coli*.

COMPOSITION

Ingredients	Gms / Ltr
Disodium hydrogen phosphate	33.900
Potassium dihydrogen phosphate	15.000
Sodium chloride	2.500
Ammonium chloride	5.000

PRINCIPLE

The components of this media supply the required nutrients for proper growth. Ammonium chloride acts as the nitrogen source and Sodium chloride maintains the final osmolarity of the medium. M9 Minimal Salts Base, 5x, is a 5x concentrate and should be diluted to 1x concentration before usage. Glucose may be added as a carbon source. Some other nutritional elements (e.g. calcium and magnesium) can be added as supplement.

INSTRUCTION FOR USE

- Dissolve 56.4 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Dispense as desired and sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : White to cream coloured, homogeneous, free flowing powder.
Appearance of prepared medium : Colourless, clear solution without any precipitate.
pH (at 25°C) : 6.6-7.0

INTERPRETATION

Cultural characteristics observe after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period

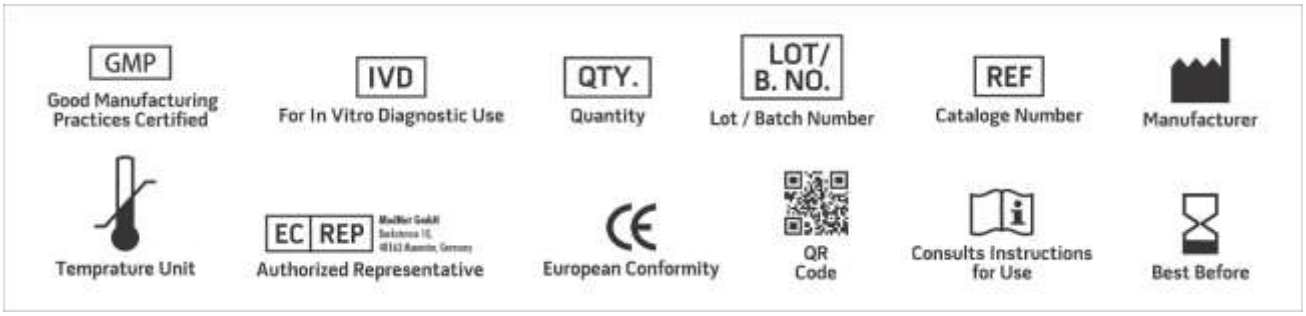
Escherichia coli	25922	50-100	Good-luxuriant	35-37°C	18-48 Hours

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. Davis, L.G., M.D. Dibner and J.F. Battey, Basic methods in molecular biology, Elsevier, new York, (1986).
2. Sambrook, J,., E. F. Fritsch, and T. Maniatis, 1989, Molecular cloning: a laboratory manual, 2nd edition ed., Cold Spring Harbour laboratory, Cold Spring Harbour, N.Y.
3. Pardee, A. B., F. Jacob, and J. Monod. 1959. The genetic control and cytoplasmic expression of "inducibility" in the synthesis of ß-galactosidase in E. coli. J. Mol. Biol. 1:165-178.



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