TM 1284 - SOC BROTH

INTENDED USE
A medium for molecular biology.

PRODUCT SUMMARY AND EXPLANATION
SOC Broth Base is a medium which is prepared by adding 20% glucose solution to SOB Medium (Hanahans Broth). This medium is a nutritionally rich growth medium used for growing bacterial cells, for preparing chemically competent cells and in the recovery step of competent cell transformations. *E. coli* is first grown in SOB Medium (Hanahans Broth) to get the desired cell density. The cells are then harvested and subjected to chemical treatment or electoporation to develop competent cells. These competent cells are then transformed using suitable method. The transformants are then grown in SOC Medium. The use of SOC Broth maximizes the transformation efficiency of competent cells.

COMPOSITION

Ingredients	Gms / Ltr
Casein enzymic hydrolysate	20.000
Yeast extract	5.000
Sodium chloride	0.500
Magnesium sulphate	2.400
Potassium chloride	0.186

PRINCIPLE
Casein enzymic hydrolysate and yeast extract serve as rich sources of nitrogen and growth factors which are readily available to the bacteria that are under stress due to transformation procedures. These sources of nutrients allow them to recover from stress and grow well. Potassium and sodium chloride maintain isotonic conditions. Magnesium sulphate is a source of magnesium ions required in a variety of enzymatic reactions including DNA replication.

INSTRUCTION FOR USE
- Dissolve 28.08 grams in 980 ml distilled water.
- Heat if necessary, to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 45-50°C and aseptically add 20 ml of filter sterilized 20% glucose solution.
- Mix well and dispense as desired.

QUALITY CONTROL SPECIFICATIONS
Appearance of Powder : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Light amber coloured clear solution without any precipitate.
pH (at 25°C) : 7.0±0.2

INTERPRETATION
Cultural characteristics observed after an incubation.

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

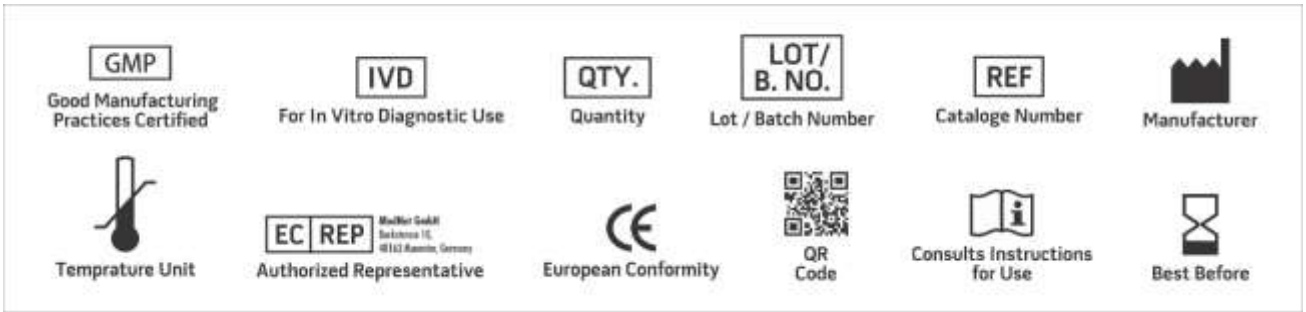
Escherichia coli DH5 alpha	50-100	Luxuriant	35-37°C	18-24 Hours

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. Sambrook J., Fritsch E. E. and Maniatis T., 1989, Molecular Cloning: A Laboratory Manual, 2nd Ed., Cold Spring Harbor Lab., Cold Spring Harbor, N.Y.



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