TM 334 – DEXTROSE AGAR

INTENDED USE
For cultivation of wide variety of microorganisms.

PRODUCT SUMMARY AND EXPLANATION
Dextrose in culture media serves as a source of energy. A basal media with 0.5 - 1.0% dextrose, supplemented with defibrinated blood is recommended for the isolation of a wide variety of fastidious organisms. Dextrose Agar, recommended by APHA, contains 1.0% dextrose and therefore supports early and luxuriant growth of a variety of organisms including older cultures. The lag phase is comparatively reduced on this medium. But due to high concentrations of dextrose, the medium is not recommended for studying the haemolytic pattern of organism since dextrose interferes with the haemolytic reaction.

COMPOSITION

Ingredients	Gms / Ltr
Tryptose	10.000
Beef extract	3.000
Dextrose (Glucose)	10.000
Sodium chloride	5.000
Agar	15.000

PRINCIPLE
The medium consists of high concentration of dextrose as an energy source for the rapid growth of microorganisms. However, this medium is not very suitable for the study of haemolysis because of high carbohydrate content. Beef extract and Tryptose serve as sources of nitrogenous compounds, sulphur, carbon, vitamins and minerals. Osmotic balance of the medium is maintained by sodium chloride.

INSTRUCTION FOR USE
- Dissolve 43 grams in 1000 ml purified/distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15psi pressure (121°C) for 15 minutes. Cool to 45-50°C. If desired, Blood Agar can be prepared by the addition of 5% v/v sterile, defibrinated sheep blood into sterile Dextrose Agar.
- 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 : Basal medium :Light yellow After addition of 5%v/v sterile defibrinated blood :Cherry red coloured, Basal medium :clear to slightly opalescent gel; After addition :opaque gel forms in Petri plates.

pH (at 25°C) : 7.3 ± 0.2

INTERPRETATION
Cultural characteristics observed after incubation.

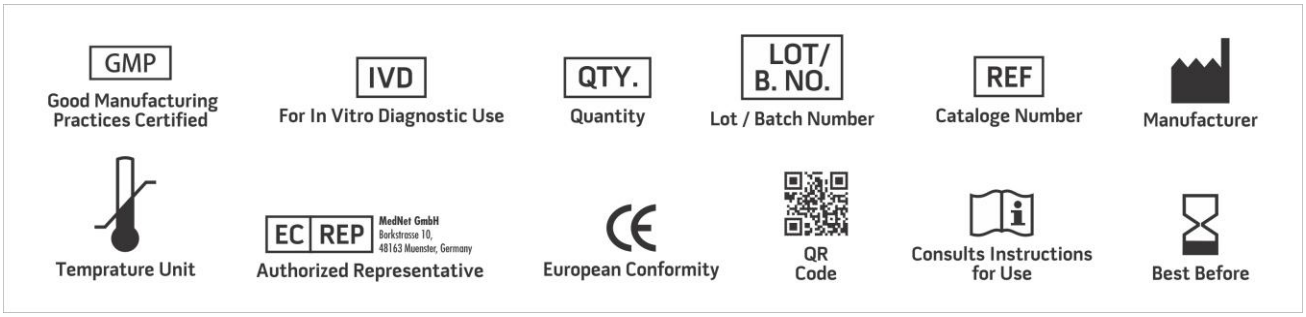
Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Growth w/ blood	Recovery w/ Blood	Incubation Temperature	Incubation Period
Bordetella pertussis	8467	50-100	Good	50-70%	Luxuriant	>=70%	35-37 °C	18-24 Hours
Neisseria meningitidis	13090	50-100	Good	50-70%	Luxuriant	>=70%	35-37 °C	18-24 Hours
Neisseria gonorrhoeae	19424	50-100	Good	50-70%	Luxuriant	>=70%	35-37 °C	18-24 Hours
Streptococcus pyogenes	19615	50-100	Good	50-70%	Luxuriant	>=70%	35-37 °C	18-24 Hours
Clostridium perfringens	12919	50-100	Fair-good	40-50%	Luxuriant	>=70%	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.

REFERENCES
1. Norton, 1932, J. Lab. Clin. Med., 17:585.
2. Vanderzant C. and Splittstoesser D. F. (Eds.), 1992, Compendium of Methods for the Microbiological Examination of Foods, 3rd Ed., APHA, Washington, D.C.



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

***For Lab Use Only**

Revision: 08 Nov., 2019