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Product Data Sheet

EGG YOLK AGAR BASE
Product No. GB-DCM-00193-1A

INTENDED USE
For isolation and identification of Clostridia and certain other anaerobes.

PRODUCT SUMMARY
Clostridium perfringens food poisoning is one of the most common types of human food borne illness. The foods usually involved are cooked meat or poultry products containing large numbers of viable cells. A heat-labile enterotoxin produced only by speculating cells induces the major symptoms of diarrhea in perfringens poisoning. Egg Yolk Agar Base is a slight modification of McClung Toabe Agar Base used for isolation and detection of Clostridium perfringens. Egg Yolk Agar Base differs from the original formula by the inclusion of hemin.

Product Specifications

Ingredients	Gms / Ltr
Proteose peptone	40.000
Disodium hydrogen phosphate	5.000
Potassium dihydrogen phosphate	1.000
Sodium chloride	2.000
Magnesium sulphate	0.100
Dextrose (Glucose)	2.000
Hemin	0.005
Agar	25.000

INSTRUCTION FOR USE
- Dissolve 75.10 grams in 900 ml purified / distilled water.
- Heat to boiling to dissolve the medium completely.
- Dispense in 90 ml amounts in tubes or flasks as desired. Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 45-50° C and add 10 ml of sterile egg yolk emulsion per 90 ml of medium.
- Mix well and pour into sterile Petri plates.

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PRINCIPLE

The medium consists of Proteose peptone which provide the essential nutrients along with carbonaceous and nitrogenous substances. Phosphates buffer the medium whereas sodium chloride maintains the osmotic equilibrium. Magnesium sulphate serves as a source of divalent cations along with sulphates. Glucose serves as a source of energy. Hemins help to enhance the growth of anaerobic organisms. Organisms producing lecithinase break down lecithin present in the egg yolk emulsion producing an insoluble opaque precipitate around the colonies. Lipase-producing organisms break down free fatty acids (in the egg yolk emulsion) forming an iridescent sheen on the surface of the colonies. Lipase activity may be delayed; therefore, plates should not be discarded as negative before incubation for a week. Proteolytic activity is seen as clear zones around the colonies. The media should be directly inoculated with the test specimen.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Lecithinase	Lipase activity*	Proteolytic activity	Incubation Temperature	Incubation Period
Bacteroides fragilis	25285	50-100	Good-Luxuriant	>=50%	Negative reaction	Negative reaction, no iridescent sheen on the colony surface and medium	Negative, no clear zone surrounding colonies	35-37°C	48-72 Hours
Clostridium botulinum	25763	50-100	Good-Luxuriant	>=50%	Negative reaction	Negative reaction, no iridescent sheen on the colony surface and medium	Positive, clear zone surrounding colonies	35-37°C	48-72 Hours
Clostridium butyricum	13732	50-100	Good-Luxuriant	>=50%	Negative reaction	Negative reaction, no iridescent sheen on the colony surface and medium	Positive, clear zone surrounding colonies	35-37°C	48-72 Hours
Clostridium perfringens	12924	50-100	Good-Luxuriant	>=50%	Positive, opaque zone around the colony	Negative reaction, no iridescent sheen on the colony surface and medium	Negative, no clear zone surrounding colonies	35-37°C	48-72 Hours
Clostridium sporogenes	11437	50-100	Good-Luxuriant	>=50%	Negative reaction	Positive, irridescent sheen on the colony surface and medium	Positive, clear zone surrounding colonies	35-37°C	48-72 Hours

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder: Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium: Basal medium: Medium amber coloured, clear to slightly opalescent gel After addition of egg yolk emulsion: Coloured opaque gel forms in Petri plates
pH (at 25°C) : 7.6±0.2

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.

This product is for research use only.

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