TM 744 – PLESIOMONAS DIFFERENTIAL AGAR (INOSITOL BRILLIANT GREEN BILE AGAR)

INTENDED USE

For selective isolation of *Plesiomonas shigelloides* and *Aeromonas* species from foods.

PRODUCT SUMMARY AND EXPLANATION

Plesiomonas differential Agar (Inositol Brilliant Green Bile Agar) is a medium described by Schubert and is recommended for selective isolation of *P.shigelloides* (an opportunistic pathogen) and *Aeromonas* species from faeces and other foodstuffs. Several media and methods have been designed to selectively isolate *P.shigelloides*. Strains of *P.shigelloides* grow in the presence of brilliant green and are also resistant to bile salts that are usually incorporated in media to inhibit gram-positive bacteria. Most bacterial species do not ferment meso-inositol, but almost all strains of *P.shigelloides* ferment this to naturally occurring cyclic polyhydroxyl alcohol. Schubert took advantage of the three properties as discussed above and designed Inositol Brilliant Green Bile Salts Agar. It is a differential medium for inositol utilizers and non-utilizers.

COMPOSITION

Ingredients	Gms / Ltr
Proteose Peptone	10.000
Meat extract	5.000
Meso-Inositol	10.000
Bile salts mixture	8.500
Sodium chloride	5.000
Brilliant green	0.00033
Neutral red	0.025
Agar	13.500

PRINCIPLE

This medium consists of Proteose peptone and Meat extract which supply nitrogenous nutrients required for the growth of organisms. Bile salts and brilliant green inhibit all gram-positive bacteria and most of the gram-negative bacilli, other than coliforms respectively. Meso-inositol is a fermentable carbohydrate source in the medium while neutral red is the pH indicator. *Plesiomonas* may be misidentified as a member of the *Enterobacteriaceae*, if oxidase test is not performed during the identification procedure.

INSTRUCTION FOR USE

- Dissolve 52.03 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 : Light yellow to pinkish beige homogeneous free flowing powder.
Appearance of prepared medium : Reddish orange coloured, clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 7.2 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Colour of colony	Incubation Temperature	Incubation Period
Aeromonas hydrophila	7966	50-100	Luxuriant	>=70%	Colourless	35-37°C	18-24 Hours
Klebsiella pneumoniae	13883	50-100	Good	40-50%	Pink	35-37°C	18-24 Hours
Plesiomonas shigelloides	14029	50-100	Luxuriant	>=70%	Pink	35-37°C	18-24 Hours
Staphylococcus aureus subsp. aureus	25923	50-100	Inhibited	0%	-	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

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3. Bhat P., Shanthakumari S. and Rajan D., 1974, Ind. J. Med. Res. ,62:1051.
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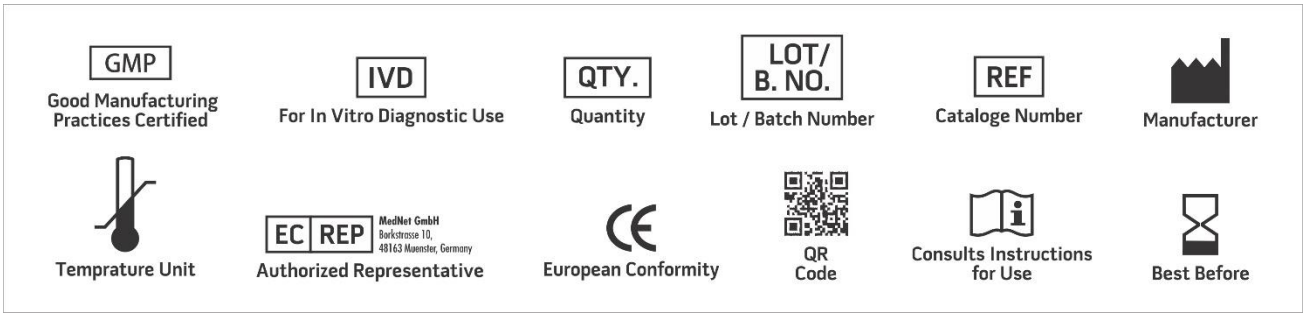
5. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.



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

***For Lab Use Only**

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