TM 630 – FNA MEDIUM (FLUORESCEIN DENITRIFICATION AGAR)

INTENDED USE

For differentiation of *Pseudomonas* from other bacilli based on their ability to reduce nitrates or nitrites to nitrogen gas (denitrification) and detection of fluorescein pigment.

PRODUCT SUMMARY AND EXPLANATION

FNA Agar is based on the formula described by Pickett and Pedersen. Fluorescence-Denitrification (FN) Media is formulated to detect fluorescein pigment and complete reduction of nitrate to nitrogen gas. These two characteristics are important in the identification of the *pseudomonads* and other non-fermentative bacilli. *Pseudomonas* species may represent a minority of the total microflora at the beginning of shelf life. However, under certain conditions, their capacity for rapid growth decides their dominance. A problem associated with the use of media developed for isolation of *Pseudomonas* species from foods is the considerable interference from non-pseudomonads.

COMPOSITION

Ingredients	Gms / Ltr
Peptone	5.000
Tryptone	5.000
Magnesium sulphate	1.500
Dipotassium hydrogen phosphate	1.500
Potassium nitrate	2.000
Sodium nitrite	0.500
Agar	15.000

PRINCIPLE

The medium consists of potassium nitrate and sodium nitrite as the source of nitrate and nitrite respectively for the denitrification by *Pseudomonas*. Peptone and Tryptone supply the necessary nutrients. Dipotassium phosphate maintains buffering conditions. Magnesium sulphate is the cationic salt and is an activator, which intensifies luminescence.

INSTRUCTION FOR USE

- Dissolve 30.5 grams in 1000 ml purified / distilled water.
- Heat to boiling to dissolve the medium completely.
- Dispense in tubes and Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool the tubed medium in a slanted position.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.

Appearance of prepared medium : Medium amber coloured, clear to slightly opalescent gel forms in tubes as slants.

pH (at 25°C) : 6.6 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.

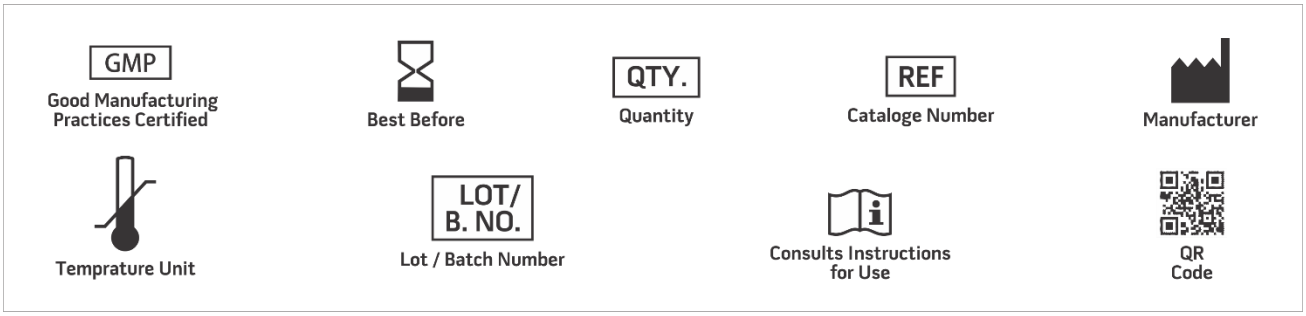
Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Fluorescence (under uv)	Nitrate Reduction	Incubation Temperature	Incubation Period
Acinetobacter calcoaceticus	43498	50-100	Good-luxuriant	Negative	Negative reaction, no colour development	35-37°C	24-48 Hours
Pseudomonas aeruginosa	27853	50-100	Good-luxuriant	Negative	Positive reaction, red colour developed within 1-2 minutes	35-37°C	24-48 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. Corry J. E. L., Curtis G. D. W. and Baird R. M., Culture Media for Food Microbiology, Vol. 34, Progress in Industrial Microbiology, 1995, Elsevier, Amsterdam.
2. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.
3. Pickett M. J. and Pedersen M. M., 1968, Appl. Microbiol., 16:1631.



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