

TM 2253 – NEO ENRICHMENT BROTH BASE

INTENDED USE

Is a selective enrichment broth for Listeria species from food samples.

PRODUCT SUMMARY AND EXPLANATION

The medium developed for the selective enrichment and isolation of Listeria species from food samples is Neo Enrichment Broth base. Recovery of Listeria species can be achieved in 24 hours using Neo Enrichment Broth. This allows the early detection of Listeria species as primary and secondary enrichment steps are avoided, which are time consuming. Neo Enrichment Broth Base therefore, is a single enrichment medium, which eliminates the need of secondary enrichment and the recovery levels of Listeria species at 24 hours are comparable to the ISO enrichment method.

COMPOSITION

Ingredients	Gms / Ltr
Peptone special	28.000
Carbohydrate mix	6.000
Salt mix	10.000

PRINCIPLE

This medium contains peptone special, mixture of salts and carbohydrates to give optimal recovery and growth of Listeria species from food samples after 24 hours. Listeria monocytogenes hydrolyses esculin (which is available in carbohydrate mix) to form esculentin and dextrose. Esculetin reacts with ammonium ferric citrate (which is available in salt mix) producing blackening. The medium is rendered selective by addition of selective supplement. For the enrichment, 25 grams of food sample is added to 225 ml of Neo Enrichment Broth in a stomacher bag. Homogenize the material if required. Incubation is carried out at 30°C for 24 hrs and the sample is subcultured on suitable agar medium.

INSTRUCTION FOR USE

- Dissolve 22 grams in 500 ml distilled water.
- Heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 psi (121°C) for 15 minutes.
- Cool to 45-50°C and aseptically add rehydrated contents of 1 vial of Neo Enrichment Selective Supplement.
- Mix well and dispense in sterile test tubes.

Warning: Salt mix of this medium contains harmful substance. Avoid bodily contact and inhalation of vapours. On contact with skin, wash with plenty of water immediately.

QUALITY CONTROL SPECIFICATIONS

- Appearance of Powder** : Cream to yellow homogeneous free flowing powder.
- Appearance of prepared medium** : Yellow coloured clear to slightly opalescent solution having a bluish tinge.
- pH (at 25°C)** : 7.4 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation with added Neo Enrichment Selective Supplement.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Esculin hydrolysis	Incubation Temperature	Incubation Period
<i>Escherichia coli</i>	25922	$\geq 10^3$	Inhibited	-	35-37°C	24 Hours
<i>Listeria monocytogenes</i>	19111	50-100	Good-luxuriant	Positive, reddish brown colouration of medium	35-37°C	24 Hours
<i>Listeria monocytogenes</i>	19112	50-100	Good-luxuriant	Positive, reddish brown colouration of medium	35-37°C	24 Hours
<i>Listeria monocytogenes</i>	19117	50-100	Good-luxuriant	Positive, reddish brown colouration of medium	35-37°C	24 Hours
<i>Staphylococcus aureus</i>	25923	$\geq 10^3$	Inhibited	-	35-37°C	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. ISO 11290 - 1: Microbiology of food and animal feeding stuffs horizontal method for the detection and enumeration of *Listeria monocytogenes*, 1996.



 GMP Good Manufacturing Practices Certified	 Best Before	 Quantity	 Catalogue Number	 Manufacturer
 Temperature Unit	 Lot / Batch Number	 Consults Instructions for Use	 QR Code	

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

***For Lab Use Only**
Revision: 08 Nov., 2019