B12 Maintenance Medium (for E. coli Mutant)

Intended Use
B_{12} Maintenance medium is used for the propagation, cultivation and maintenance of *E. coli* mutant 113-3D ATCC 11105, which is the test organism in vitamin B_{12} assay.

Summary
Escherichia coli mutant species grow poorly on non-selective culture media and require special nutrients for its growth. B_{12} Maintenance Media for *E. coli* mutant is recommended for supporting stock cultures to preserve the viability and sensitivity of the test organism for its intended purpose.

Principle
Tryptone is a source of carbon and nitrogen while yeast extract serves as an energy source as well as supplies B-complex vitamins. Sucrose is a fermentable carbohydrate, liver extract provides B-vitamins, potassium phosphate acts as a buffer and sodium chloride maintains the osmotic balance.

Formula*

Ingredients	**g/L**
Sucrose	12.0
Yeast Extract	5.0
Tryptone	5.0
Monopotassium Phosphate	0.5
Magnesium Sulphate	0.2
Sodium Chloride	0.1
MX Nutrients 3#	0.05
Ferrous Sulphate	0.001
Agar	15.0
Final pH (at 25°C)	7.0 ± 0.2

*Adjusted to suit performance parameters.
#Equivalent to intended performance of Liver Extract

Storage and Stability
Store below 8°C in tightly closed container, preferably in dessicators and use freshly prepared medium. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

Specimen Collection and Handling
Ensure that all samples are properly labelled.
Follow appropriate techniques for handling samples as per established guidelines.
Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure.
The samples must be stored and tested within the permissible time duration.
After use, contaminated materials must be sterilized by autoclaving before discarding.

Directions
1. Suspend 37.85 g of the powder in 1000 mL purified / distilled water.
2. Boil with frequent agitation, to dissolve the powder completely.
3. Sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.
4. Dispense as required.

Quality Control
Dehydrated Appearance: Light yellow coloured, homogenous, free flowing powder.
Prepared Appearance: Light to medium amber coloured, slightly opalescent gel that may have a slightly flocculent precipitate.
Cultural Response: Cultural characteristics observed after an incubation of 18-24 hours at 30ºC -35°C.

Organisms (ATCC)	Growth
Escherichia coli 113-3D (11105)	Good

Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

Warranty

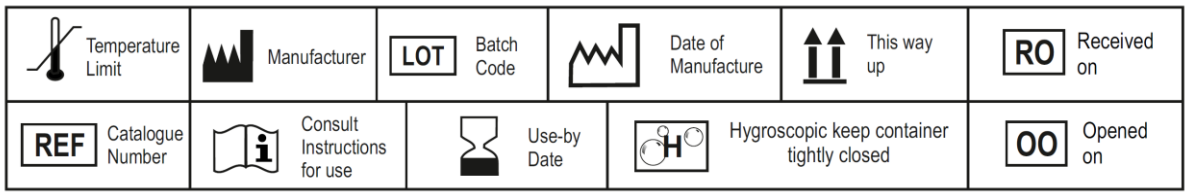
This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

Reference

1. Kavanagh F., (1972), Analytical Microbiology, Academic Press, New York.
2. United States Pharmacopeial Convention, Inc. 2001. The United States pharmacopeia 25/The national formulary 20 – 2002. United States Pharmacopeial Convention, Inc., Rockville, Md.
3. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product description	Pack Size
201020030100	Dehydrated Culture Media	100 g



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Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.