TMV 2084 – FLUID THIOGLYCOLLATE MEDIUM (THIOGLYCOLLATE MEDIUM FLUID) (VEG.)

INTENDED USE

For sterility testing of biologicals and for cultivation of anaerobes, aerobes and microaerophiles.

PRODUCT SUMMARY AND EXPLANATION

Fluid Thioglycollate Medium (Veg) are specially developed from Veg hydrolysate and Veg extract to avoid BSE/ TSE risks associated with animal origin peptone. These media are the modifications of medium formulated by Brewer (by adding a reducing agent and small amount of agar) for rapid cultivation of aerobes as well as anaerobes and recommended by AOAC for sterility testing of antibiotics, biologicals and foods and for determining the phenol coefficient and sporicidal effect of disinfectants. However, it is intended for the examination of clear liquid or water-soluble materials. This medium is also used in the detection of viable bacteria in vaccines.

COMPOSITION

Ingredients	Gms / Ltr
Veg hydrolysate	15.000
Yeast extract	5.000
Dextrose	5.500
Sodium chloride	2.500
L-Cystine	0.500
Sodium thioglycollate	0.500
Resazurin sodium	0.001
Agar	0.750

PRINCIPLE

The medium consists of Dextrose, Veg hydrolysate, Veg extract, yeast extract, L-Cystine which provide the growth factors necessary for bacterial multiplication. Sodium thioglycollate act as a reducing agent and neutralizes the antibacterial effect of mercurial preservatives and other heavy metal compounds which exert a bacteriostatic effect on the materials under examination. L-Cystine is a reducing agent, since it contains sulfhydryl group, which inactivate heavy metal compounds and maintain low redox potential, thereby supporting anarobics. By creating an environment with a low Eh, the reducing agents prevent the accumulation of peroxides which can be toxic to some organisms. Any increase in the oxygen content is indicated by a colour change of redox indicator, resazurin to red. The small amount of agar helps in maintaining low redox potential for stabilizing the medium.

INSTRUCTION FOR USE

- Dissolve 29.75 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 25°C and store in a cool dark place preferably below 25°C.
  Note: If more than the upper one-third of the medium has acquired a pink-purple colour, the medium may be restored once by heating in a water bath or in free flowing steam until the pink-purple colour disappears.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Yellow coloured, may have slightly greenish tinge, homogeneous, free flowing powder.

Appearance of prepared medium : Light straw coloured, clear to very slightly opalescent solution with upper 10% or less medium pink on standing.

pH (at 25°C) : 7.1 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
Bacillus subtilis	6633	50-100	Luxuriant	25-30°C	2-7 Days
Candida albicans	10231	10-100	Luxuriant	25-30°C	2-7 Days
Clostridium sporogenes	11437	50-100	Luxuriant	25-30°C	2-7 Days
Micrococcus luteus	9341	50-100	Luxuriant	25-30°C	2-7 Days
Neisseria meningitidis	13090	50-100	Luxuriant	35-37°C	48-72 Hours
Streptococcus pyogenes	19615	50-100	Luxuriant	35-37°C	48-72 Hours
Bacteroides vulgatus	8482	50-100	Luxuriant	25-30°C	2-7 Days

PACKAGING:

In pack size of 100 gm and 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. Brewer, 1940, J. Am. Med. Assoc., 115:598.
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4. Nungester, Hood and Warren, 1943, Proc. Soc. Exp. Biol. Med., 52:287.
5. Portwood, 1944, J. Bact., 48:255.
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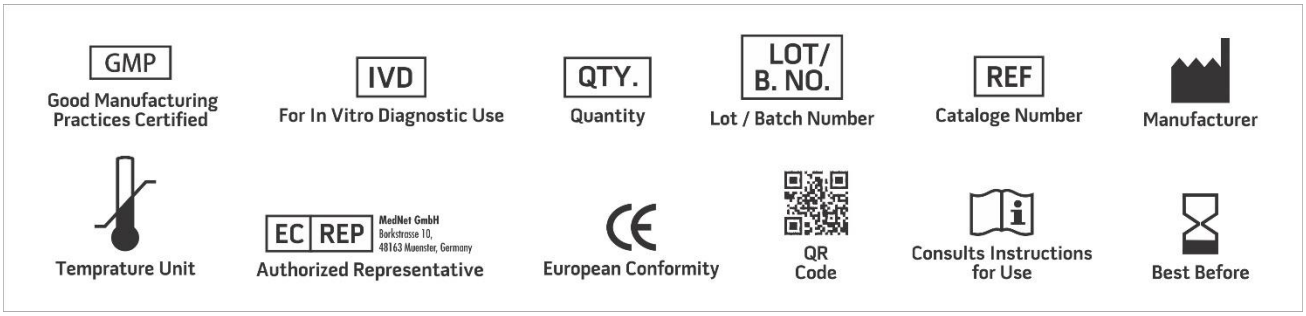

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

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