

TM 1546 – DEV GELATIN AGAR (GELATIN DEV AGAR)

INTENDED USE

For determination of total microbial count and detection of gelatin liquefying microorganisms.

PRODUCT SUMMARY AND EXPLANATION

Gelatin, a protein derivative of animal collagen is incorporated into various media to determine an organism's ability to produce proteolytic type enzyme (proteinase) detected by digestion or liquefaction of the gelatin. Gelatinase is a pepsin, which hydrolyses gelatin to polypeptides, peptides and amino acids. Gelatin DEV Agar is used to determine the total microbial count and for detecting gelatin liquefying microorganisms in water as per the German Drinking Water Regulations, 1990.

COMPOSITION

Ingredients	Gms / Ltr
Peptone from meat	10.000
Meat extract	10.000
Sodium chloride	5.000
Gelatin	10.000
Agar	15.000

PRINCIPLE

The medium consists of nutrients like peptone from meat, meat extract and gelatin, which provide nitrogen compounds and also carbon compounds for the growth of organisms. Gelatin acts as solidifying agent and also acts as a substrate for the organisms producing gelatinase enzyme. Gelatin breakdown can be visualized by flooding the plates with a saturated solution of ammonium sulphate. Clear zones are observed around gelatin-liquefying colonies.

INSTRUCTION FOR USE

- Dissolve 50 grams in 1000 ml purified/distilled water.
- Mix well and heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 121°C for 15 minutes. DO NOT OVERHEAT.
- Cool to 45-50°C. Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium	: Yellowish brown coloured, clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C)	: 7.3 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation. (Gelatin liquefaction is observed by flooding the plate with saturated solution of ammonium sulphate).



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Gelatin liquefaction	Incubation Temperature	Incubation Period
<i>Escherichia coli</i>	25922	50-100	Good-luxuriant	>=50%	Negative, no clear zone around the colony	18-22 °C	40-48 Hours
<i>Pseudomonas aeruginosa</i>	27853	50-100	Good-luxuriant	>=50%	Positive, clear zone around the colony	18-22 °C	40-48 Hours
<i>Bacillus cereus</i>	10876	50-100	Good-luxuriant	>=50%	Positive, clear zone around the colony	18-22 °C	40-48 Hours
<i>Staphylococcus aureus</i>	25923	50-100	Good-luxuriant	>=50%	Positive, clear zone around the colony	18-22 °C	40-48 Hours
<i>Proteus vulgaris</i>	13315	50-100	Good-luxuriant	>=50%	Negative, no clear zone around the colony	18-22 °C	40-48 Hours
<i>Enterococcus faecalis</i>	29212	50-100	Good-luxuriant	>=50%	Positive, clear zone around the colony	18-22 °C	40-48 Hours
<i>Aeromonas hydrophila</i>	7966	50-100	Good-luxuriant	>=50%	Positive, clear zone around the colony	18-22 °C	40-48 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. MacFaddin J. F., 2000, Biochemical tests for Identification of Medical Bacteria, 3rd Edi., Lippincott, Williams and Wilkins, Baltimore.
2. Deutsche Einheitsverfahren zur Wasser-, Abwasser- und Schlammuntersuchung. - VCH Verlagsgesellschaft, D-6940 Weinheim.
3. Verordnung über Trinkwasser und über Wasser für Lebensmittelbetriebe vom 12, Dezember 1990, - Bundesgesetzbl.: Teil I; 2613-2669 (1990).



 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