

TM 2298 – PYRAZINAMIDASE AGAR

INTENDED USE

For identification of *Yersinia* species in accordance with FDA BAM, 1998.

PRODUCT SUMMARY AND EXPLANATION

Yersinia enterocolitica is a ubiquitous organism, isolated from soil, water, animals, and a variety of foods. They comprise a biochemically heterogeneous group that can grow even at refrigerated temperatures. The association of human illness with consumption of *Y. enterocolitica* - contaminated food, animal wastes, and unchlorinated water is well documented. Pyrazine Amidase Agar is used for the identification of *Yersinia sp.* in accordance with FDA BAM, 1998. Pyrazinamidase activity distinguish potential pathogenic from nonpathogenic strains of *Y. enterocolitica* in epidemiological surveillance programs. Fully grown culture, on pyrazinamidase agar slants at RT is flooded with 1 ml of 1% freshly prepared ferrous ammonium sulphate over slant. Development of pink color within 15 min is positive test, indicating presence of pyrazinoic acid formed by pyrazinamidase enzyme.

COMPOSITION

Ingredients	Gms / Ltr
Tryptone	11.250
Soya peptone	3.750
Sodium chloride	3.750
Yeast extract	3.000
Pyrazine-carboxamide	1.000
Agar	11.250

PRINCIPLE

This medium consists of Tryptone, soya peptone and yeast extract which provides nitrogenous, carbonaceous compounds, long chain amino acids, vitamins and other essential nutrients. Sodium chloride maintains the osmotic balance of the medium. Pyrazine-carboxamide acts as substrate to detect Pyrazinamidase activity.

INSTRUCTION FOR USE

- Dissolve 34.00 grams in 1000 ml 0.2 M Tris-maleate, pH 6.0.
- Heat to boiling to dissolve the medium completely.
- Dispense 5ml amount in 16 x 125 mm tubes.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 min. After sterilization, cool the tubes in slanted position.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium	: Light yellow coloured clear to slightly opalescent gel forms in tubes as slants.
pH (at 25°C)	: 6.0 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation. After incubation flood 1 ml of 1% freshly prepared ferrous ammonium sulphate solution over the slant.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Pyrazinamidase Test	Incubation Temperature	Incubation Period
<i>Yersinia enterocolitica</i>	27729	50-100	Good-luxuriant	Variable Positive (development of pink colour within 15 mins)	25-30°C	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. Aleksic, S., A., Steigerwalt, J., Bockemuhl, G., Huntley-Carter. and Brenner, D.J 1987. Int. J. Syst. Bacteriol, 37: 327-332
2. FDA, U.S. 1998. Bacteriological Analytical Manual. 8 ed. Gaithersburg, MD: AOAC International.
3. Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.
4. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock, D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol.
5. Sabina, Y., Rahman, A., Ray, R.C. and Montet, D. 2011. Journal of Pathogens, 2011.

 GMP Good Manufacturing Practices Certified	 Best Before	 QTY. Quantity	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 LOT/ B. NO. 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**
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