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LYSINE IRON AGAR

For in vitro diagnostic use

Cat. No. TT152

Test Tubes

Pkg: 20 units in a box

Expiry Date: Printed on label

Storage:

15-25 °C

Intended Use

Differentiation among the Enterobacteriaceae detection of de-carboxylation or deamination of lysine and production of H₂S or lack of it.

Procedure:

Inoculation: 1. Growth from a pure culture
2. With inoculating needle, streak, slant and stab butt twice.

Incubation: Aerobically 35-37°C, 24-48 hours.

Interpretation:

1. Lysine decarboxylation detected in BUTT.

- a) (+) Purple slant/Purple butt (alkaline) with/without H₂S (black precipitate of ferrous sulfide FeS)
 - i) Purple (alk) slant due to aerobic deamination of peptones.
 - ii) Butt reaction:
 - 1) Decarboxylation of amine to cadaverine.
 - 2) May be masked by H₂S black color. H₂S ONLY produced in alkaline (purple) environment.
- b) (-) Purple slant/Yellow butt (acid) fermentation of glucose only.



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2. Lysine deamination, detected on SLANT

- a) (+) Red slant/Yellow butt
- i) Red slant due to aerobic deamination of amine to alpha-Ketocarboxylic acid. (Only *Proteus*, *M. Morganmi* and *Prov.* |oxidative deamination. *spp*);
 - ii) Butt reaction due to fermentation of glucose.
- b) (-) Slant remains a purple color.

Microorganisms	ATCC No.	Slant	Butt	H- ₂ S
<i>E. coli</i>	25922	K	A	-
<i>Proteus mirabilis</i>	4630	R	A	-
<i>Proteus vulgaris</i>	13315	R	A	-
<i>Salmonella typhimurium</i>	14028	K	K	+
<i>Salmonella arizonae</i>	CB302	K	K	+
<i>Shigella flexneri</i>	12022	K	A	-
<i>Citrobacter freundii</i>	wild strain	K	A	+
<i>Serratia marcescens</i>	8100	K	K	-

* Results expressions:

A = acid reaction (yellow) K = alkaline reaction (purple) R = red color

Incubation:

Condition: Aerobic Time: 24-48 hours Temperature: 35-37°C

Disposal:

Used contaminated test material should be handled by standard decontamination methods such as autoclaving or incineration.