MM090

Lysine Iron Agar

Use and description:
The medium was developed to detect *Salmonella* spp, especially rapid lactose fermenting organisms like *S. arizona* by lysine decarboxylase activity and H_2S production. *S. arizona* strains due to the quick lactose fermentation suppress the positive H_2S reaction on TSI agar. To overcome this problem was this medium established.

Composition per liter:
Peptones……... 5.00 g
Yeast extract…….3.00 g
Glucose…….1.00 g
L-lysine…… 10.00 g
Ferric-ammonium citrate……..0.50 g
Sodium thiosulphate…… 0.04 g
Bromcresol purple……0.02 g
Agar……13.50 g

Final pH of the ready to use medium: 6.7 ± 0.2

Medium preparation:
Add 34 grams of dehydrated culture medium to 1 liter of distilled water, and allow to soak for 10 minutes. Swirl to mix, then bring to the boil and dispense into tubes. Autoclave ar 121°C for 15 minutes. Cooled down the tubes in inclined position to form slants .

Quality specifications:
Dehydrated medium: homogeneous, beige coloured, fine powder.
Ready to use medium: purple agar.

Microbiological response:

Organism	Result / lysine decarbox / H_2S
Salmonella typhimurium ATCC 14028	Growth,/ + / + , purple and black colour
Shigella flexneri ATCC 12022	Growth / - /- ,yellow-red colour

Storage:
Dehydrated medium should be stored between 10 to 25°C. Once opened, place the container in a dark, dry place. The dehydrated medium should not be used if there is any lump or if the color has changed from the original.

For references please turn appendix 1.

For supplement detailes please turn appendix 2.