Product Name : DIASALM (Diagnostic Salmonella Medium) Agar Base

A semi-solid selective diagnostic motility medium for the isolation of *Salmonella spp*.

FORMULA (G/L)

Peptones 27.0
Sucrose 7.5
Lactose 0.5
Sodium Thiosulphate 0.8
Ferrous Ammonium Sulphate 0.2
Malachite Green 0.037
Bromocresol Purple 0.08
Buffers 1.2
Agar 2.7
Final pH = 5.5 ± 0.2 at 25°C.

DIRECTIONS

Add 1 vial of DIASALM-MSRV Magnesium Chloride Solution (MB-D2511) to 475 mL with distilled water. Suspend 20.01 G of dehydrated media and bring to the boil with frequent agitation to dissolve completely. Cool to 50 °C. Aseptically add the contents of 1 vial of Novobiocin supplement (MB-N1821). Mix well. Dispense into final containers.

DIASALM-MSRV Magnesium Chloride Solution
1 Vial contents (each vial is sufficient for 500 mL of medium)
Magnesium Chloride ..... 6.0 G

Novobiocin supplement
1 Vial contents (each vial is sufficient for 500 mL of medium)
Novobiocin ..... 0.01 G

EXPLANATION

DIASALM (Diagnostic Salmonella Medium) Agar Base is a semi-solid selective diagnostic motility medium for the isolation of *Salmonella spp.* The selective system exploits the resistance of *Salmonella* spp. As compared to other *Enterobacteriaceae* to high osmolarity and low pH. The combination of novobiocin and malachite green suppresses the growth of Gram-positive bacteria and most, but not all Gram-negative bacteria. The semi-solid approach simultaneously enriches salmonella and separates motile *salmonella* from most competitive organisms resistant to the selective system. As a result of this on plating agars, salmonella are rarely overgrown by non *salmonella*. Sometimes *Salmonella* occur mixed with Proteus, Hafnia or Enterobacter spp. as interfering motile *Enterobacteriaceae*. A diagnostic system consisting of sucrose, lactose and bromocresol purple differentiates Salmonella from lactose and many lactose and sucrose dissimilating organisms. Non motile *Salmonella* growing at the inoculum spot(s) may produce a grey blackish center.

TECHNIC

Enrich the sample material in Buffered Peptone Water (KFDA) (MB-P2220K) (incubation: 16-20 h at 35 °C). Inoculate with either 3 drops 83 x 0.03 mL) or 1 drop of 0.1 mL of the pre-enrichment culture in the center of DIASALM (Diagnostic Salmonella Medium) Agar Base plates. Incubate the plates aerobically in an upright position at 42 °C for 12-18 hours, but not longer than 24 hours.

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Product Name : DIASALM (Diagnostic Salmonella Medium) Agar Base

QUALITY CONTROL

Dehydrated medium
Appearance: free-flowing, homogeneous.
Color: greenish.
Prepared medium
Appearance: opaque, clear.
Color: dark green.
Incubation conditions: 42°C / 12 -18 hours.

Microorganism	ATCC	Growth	Motility zone (color)
Salmonella enteritidis	13076	good	grey-white, violet, dark circle
Salmonella typhimurium	14028	good	grey-violet, dark circle
Citrobacter freundii	8090	inhibited	greenish / yellow

STORAGE

The powder is very hygroscopic: store the powder at room temperature, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident. Store prepared medium at 2-6°C, but better the use is for a few days.

PRECAUTIONS

The medium is heat sensitive. No further sterilisation is necessary or desirable.

REFERENCES

1. Van der Zee and Van Netten (1992) Proc. Symp. "Salmonella and Salmonellosis". Ploufragan: 69.

PACKAGING

Cat. No : MB-D2154 DIASALM (Diagnostic Salmonella Medium) Agar Base	500 G

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