Sulfite-Polymyxin-Sulphadiazine Agar Base

Catalog :HB0256-1

Sulfite-Polymyxin-Sulphadiazine Agar Base is used for plate counts for Clostridium perfringens.

Approximate Formula:

Ingredients	gm/liter
Casein Tryptone	15.0
Yeast extract	10.0
Ferric citrate	0.5
Sodium sulfite	0.5
Agar	15.0

Final pH7.0±0.1 at 25℃

*Adjusted and/or supplemented as required to meet performance criteria.

Directions:

Suspend 41.0g of the medium in one liter of deionized or distilled water. Heat to completely dissolved. Dispense into sterile test tubes or flasks.Sterilize in an autoclave at 121℃(15 lbs.) for 15 minutes. When cooling to 50℃, add one piece of Polymyxin B sulfate solution (1.2mg) and a piece of sulfadiazine sodium (12mg),mix thoroughly, pour into sterile petri dishes.

Principle and Interpretation:

Casein Tryptone and yeast extract provide carbon and nitrogen sources, vitamins and growth factors. Sodium sulfite and ferric citrate can detect hydrogen sulfide production by making the colony center black; Agar is the solidifying agent of the medium.; Polymyxin B and sodium sulfadiazine inhibited the growth of non-clostridium bacteria.

Appearance:

Dehydrated medium is a free-flowing yellowish powder. The prepared medium is a kind of yellowish transparent gel.

Precautions:

This medium is for laboratory use only. Dried medium which is past shelf life, caking or color variation cannot be used.

Storage conditions and Shelf life:

Sulfite-Polymyxin-Sulphadiazine Agar Base must be stored tightly capped in the original container at 5-30°C. The dehydrated medium has a shelf life of 3 years from date of manufacturing. Prepared medium may be stored, out of direct light at 2-8°C.

Quality control:

Prepare the culture medium as per label directions. Inoculate and incubate at 35℃ in an anaerobic atmosphere for 24 hours.

Microorganism	Strains Number	Inoculum (CFU)	Growth	Recovery	Remarks
Clostridium perfringens	ATCC 13124	50-100	Luxuriant	≥70%	Black with opaque zone around colonies
Escherichia coli	ATCC 25922	＞10^3	Inhibited	/	/

References:

1. Mossel. 1959. J. Sci. Food Agric. 19:662.

2. Mossel, DeBruin, van Diepen, Vendrig and Zoutewelle. 1956. J. Appl. Microbiol. 19:142.

3. Angelotti, Hall, Foster and Lewis. 1962. Appl. Microbiol. 10:193.

4. Labbe. 2001. In Downes and Ito (ed.), Compendium of methods for the microbiological examination of foods, 4th ed. American Public Health Association, Washington, D.C.

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