Differentia Reinforced Clostridial Agar(DRCA) Catalog : HB0285-1

Differentia Reinforced Clostridial Agar(DRCA)is used for counting and cultivation of Clostridium in food and other substances.

Approximate Formula:

Ingredients	gm/liter
Beef Extract	8.0
Pancreatic Digest of Casein	5.0
Peptic Digest of Animal Tissue	5.0
Yeast extract	1.0
Glucose	1.0
Soluble Starch	1.0
Sodium Acetate	5.0
L-cysteine Hydrochloride	0.5
Ammonium Ferric Citrate	0.5
Sodium Sulfite	0.75
Resazurin	0.002
Agar	15.0

Final pH7.6±0.2 at 25℃

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

Directions:

Suspend 42.75g of the medium in one liter of distilled or deionized water. Mix well and heat with frequent agitation to completely dissolve the powder. Dispense into test tubes. Sterilize in an autoclave at 121℃(15 lbs.) for 15 minutes.

Principle and Interpretation:

Pancreatic digest of casein, peptic digest of animal tissue, beef extract, yeast extract, Soluble Starch, provide the necessary nitrogen compounds, carbon and vitamins for the growth of bacteria. Glucose and L-cysteine hydrochloride are reducing substances. Resazurin is the redox indicator to monitor anaerobiosis. Sodium acetate can inhibit gram-negative bacteria. Clostridia can reduce sulfite (from sodium sulfite) in the culture medium to sulfide, which forms a black salt with ammonium ferric citrate and causes the colonies to turn black.

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:

Differentia Reinforced Clostridial Agar(DRCA) must be stored tightly capped in the original container at 5-30°C. The dehydrated medium has a shelf life of 5 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 36±1℃ for 20-24 hours.

Microorganism	Strains Number	Inoculum (CFU)	Recovery	Growth	Remarks
Clostridium perfringens	ATCC 13124	20-200	≥70%	Luxuriant	Black colonies

References:

1.DIN EN 26461:1993-04 Water quality; detection and enumeration of the spores of sulfite-reducinganaerobes (clostridia); Part 1: method by enrichment in a liquid medium; Part 2: method by membrane filtration.

2.Gibbs, B.M. and Fraeme, B. (1965): Methods for the recovery of clostridia from foods. J. Appl. Bacteriol.28: 95-102.

3.Hirsch, A. and Grinstead, E. (1954): Methods for the growth and enumeration of anaerobic sporeformers from cheese. J. Dairy Res. 21: 101-110.

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