

Technical Data Sheet

GranuCult® plus Deoxycholate agar

Ordering number: 1.16845.0500 / 1.16845.5000

Deoxycholate Agar is a selective and differential plating medium for the isolation and differentiation of gram-negative enteric bacteria.

Mode of Action

This culture medium contains peptone to provide nitrogen, vitamins, carbon, amino acids, and other nutrients to support the growth of microorganisms. Lactose is the fermentable carbohydrate. Sodium chloride and dipotassium phosphate maintain the osmotic balance. Sodium deoxycholate and ammonium iron citrate inhibit growth of gram-positive bacteria. Neutral red is a pH indicator. Agar acts as the solidifying agent.

Differentiation of enteric bacteria is based on fermentation of lactose. Lactose-positive bacteria like coliform bacteria produce acid from lactose and form red colonies. Lactose-negative bacteria like *Salmonella* spp. and *Shigella* spp. form colorless colonies.

Typical Composition

GranuCult® plus Deoxycholate agar	
Peptone	10.0 g/l
Lactose	10.0 g/l
Sodium chloride	5.0 g/l
Sodium Deoxycholate	1.0 g/l
Ammonium iron (III) citrate	2.0 g/l
di-Potassium hydrogen phosphate	2.0 g/l
Agar-agar*	15.0 g/l
Neutral red	0.033 g/l
pH at 25 °C	7.2 ± 0.2

* Agar-Agar is equivalent to other different terms of agar.

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Preparation

Dissolve 45.0 g in 1 liter of purified water. Heat in boiling water and agitate frequently until completely dissolved. Do not overheat. DO NOT AUTOCLAVE. Pour to plates.

The dehydrated medium are granules with pinkish beige color.

The prepared medium is clear to slightly opalescent and reddish-brown. The pH value at 25 °C is in the range of 7.0 - 7.4.

Before inoculation, allow the prepared medium to equilibrate at room temperature if it was stored at a lower temperature.

There should be no visible moisture on the surface of the plates before use. When moisture is present, the plates should be dried for the minimum time required to remove visible moisture, following the procedure as described by EN ISO 11133.

Experimental Procedure and Evaluation

Depend on the purpose for which the medium is used.

Inoculate and incubate as directed by the method used.

Storage

Store at +15 °C to +25 °C, dry and tightly closed. Do not use clumped or discolored medium.

Protect from UV light (including sun light). For *in vitro* use only.

Microbiological Performance

Test strain	Specification		
	Recovery (%)	Colony Color	Precipitate
<i>Escherichia coli</i> ATCC® 25922 [WDCM 00013]	≥ 65	red	+
<i>Escherichia coli</i> ATCC® 8739 [WDCM 00012]	≥ 30	red	+
<i>Enterobacter aerogenes</i> ATCC® 13048	≥ 55	red	-
<i>Enterobacter cloacae</i> ATCC® 13047 [WDCM 00083]	≥ 55	red	-
<i>Citrobacter freundii</i> ATCC® 8090	≥ 60	red	+
<i>Klebsiella pneumoniae</i> ATCC® 13883 [WDCM 00097]	≥ 65	pink to red	-
<i>Staphylococcus aureus</i> ATCC® 25923 [WDCM 00034]	≤ 0.01	-	-
<i>Enterococcus faecalis</i> ATCC® 19433 [WDCM 00009]	none to poor	-	-

Incubation: 24 h at 35 ± 1 °C, aerobic.

Please refer to the actual batch related Certificate of Analysis.

Literature

Leifson, E. 1935. New culture media based on sodium desoxycholate for the isolation of intestinal pathogens and for the enumeration of colon bacilli in milk and water. *J. Pathol.* 40:581-599.



Escherichia coli ATCC® 25922
(WDCM 00013)

Ordering Information

Product	Cat. No.	Pack size
GranuCult® plus Deoxycholate agar	1.16845.0500	500 g
GranuCult® plus Deoxycholate agar	1.16845.5000	5 kg

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