

Product Data sheet

L-ARGININE DIHYDROLASE MEDIUM, MODIFIED (ISO 22964:2006)

Product No. GB-DCM-00043-1A

Product Description

L- ARGININE DI HYDROLASE MEDIUM, MODIFIED (AS PER ISO) is used for the confirmation of Enterococcus from milk and milk products, in accordance with ISO specifications. This medium was first described by “Moeller” for detecting lysine and ornithine decarboxylase and arginine dihydrolase. Members of Enterobacteriaceae family are detected in this medium on the basis of their ability to decarboxylate arginine.

Product Specifications

Ingredients	Gms /Ltr
L-Arginine mono hydrochloride	5.000
Yeast extract	3.000
Glucose	1.000
Bromocresol purple	0.015

PRINCIPLE

The yeast extract makes this media nutritious by providing necessary nutrients for the growth of microorganisms. Glucose acts as an energy source. L-arginine stimulates the arginine dihydrolase synthesis which helps in detection of Enterobacter species. Bacteria producing arginine dihydrolase enzyme, decarboxylates arginine to putrescine and this amine elevates the pH of the medium. An elevation of the pH is detected by the indicator, bromocresol purple which forms purple in alkaline condition. Colour change from purple to yellow and then back to purple is considered a positive reaction.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder:	Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium:	Purple colour, clear solution
PH (at 25°C):	6.8±0.2

Microorganism	ATCC	Inoculum (CFU)	Growth	Arginine Dihydrolase	Recovery	Incubation Temperature	Incubation Period
Enterobacter Sakazakii	12868	50-100	Good-Luxuriant	+	>=70%	35-37°C	18-24 Hours
Enterobacter Aerogenes	13048	50-100	Good-Luxuriant	-	>=70%	35-37°C	18-24 Hours
Klebsiella pneumoniae	13883	50-100	Good-Luxuriant	-	>=70%	35-37°C	18-24 Hours
Proteus vulgaris	13315	50-100	Good-Luxuriant	-	>=70%	35-37°C	18-24 Hours
Salmonella typhi	6539	50-100	Good-Luxuriant	+	>=70%	35-37°C	18-24 Hours
Salmonella Typhimurium	14028	50-100	Good-Luxuriant	+	>=70%	35-37°C	18-24 Hours

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

Product Deterioration:

Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

Precautions and Disclaimer

- Suspend 31.5 grams in 1000 ml purified/distilled water.
- Heat if necessary to dissolve the medium completely.
- Distribute 10 ml amounts into tubes containing inverted Durham's tubes.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 10 minutes.

This product is for research use only.