

SAKAZAKII DHL AGAR**TM 1605**

Used for detection and isolation of pathogenic Enterobacteriaceae from all types of samples

Composition

Ingredients	g/L
Agar	15.00
Casein enzymatic hydrolysate	10.00
Meat peptone	10.00
Lactose	10.00
Sucrose	10.00
Meat extract	3.00
Sodium thiosulphate	2.00
Sodium deoxycholate	1.50
Sodium citrate	1.00
Ammonium iron (III) citrate	1.00
L-Cysteinium chloride	0.20
Neutral red	0.03

*Dehydrated powder, hygroscopic in nature, store in a dry place in tightly- sealed containers 25°C and protected from direct Sunlight.

Instructions for use

Dissolve 63.73g in 1000ml distilled water. Gently heat to boil with gentle swirling and dissolve the medium completely. DO NOT AUTOCLAVE. Mix well and pour into sterile Petri plates.

Appearance: Red colour, clear to slightly opalescent gel

pH (at 25°C): 7.2 ± 0.2

Principle

SAKAZAKII DHL AGAR (Deoxycholate Hydrogen Sulphide Lactose Agar) is used for detection and isolation of pathogenic Enterobacteriaceae from all types of samples. Members of Enterobacteriaceae are major component of the normal intestinal flora of human.

Medium composed of Casein enzymatic hydrolysate, Meat peptone and Meat extract (Nitrogen source), Lactose and Sucrose (carbon source). Sodium deoxycholate inhibits gram - positive bacteria and prevents swarming of *Proteus* species. Sodium thiosulphate is reduced to H₂S, which reacts with Ferric ions to give typical black precipitate.

Microbiological parameter (Growth promotion test)

Cultural characteristics observed after inoculation (10³CFU /ml) and incubation at 35 - 37°C or 24 - 48 hours.

Test strains	ATCC	Inoculum (CFU/ml)	% Recovery	H ₂ S production	Colony appearance
<i>Escherichia coli</i>	25922	10 ³	≥ 50%	Negative	Red with bile precipitate
<i>Klebsiella pneumoniae</i>	10033	10 ³	≥ 50%	Negative	Pink
<i>Salmonella typhimurium</i>	14028	10 ³	≥ 50%	Positive	Colourless with black centre
<i>Proteus vulgaris</i>	13315	10 ³	30 – 40%	Negative	Pink with brownish zone
<i>Shigella flexneri</i>	12022	10 ³	30 – 40%	Negative	Colourless
<i>Staphylococcus aureus</i>	25923	10 ⁴	0%	NA	NA

NA; Not applicable

Reference

1. Koneman E. W., Allen S. D., Janda W. M., Schreckenberger P. C., Winn W. C. Jr., 1992, Colour Atlas and Textbook of Diagnostic Microbiology, 4th Ed., J. B. Lippincott Company.
2. Sakazakii R., Namioka S., Osada A., a. Yamada C. A., 1960, Japan. J. Ex. Med., 30; 13-22.
3. Sakazakii R., Tamura K., Prescott L. M., Benzic Z., Sanyal S. C., a. Sinha, R., 1971, Indian J. Med. Res., 59; 1025-1034.