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OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION		
LYSINE IRON AGAR CM0381		

LYSINE IRON AGAR

CM0381

Typical Formula*

	grams per litre
Peptone	5.0
Yeast extract	3.0
Glucose	1.0
L-lysine	10.0
Ferric ammonium citrate	0.5
Sodium thiosulphate	0.04
Bromocresol purple	0.02
Agar	14.5

* adjusted as required to meet performance standards

Directions

Suspend 34g in 1 litre of distilled water. Boil to dissolve the medium completely. Dispense into tubes and sterilize by autoclaving at 121°C for 15 minutes. Cool the tubes in an inclined position to form slants with deep butts.

Physical Characteristics

Straw, free-flowing powder
 Colour on reconstitution - purple
 Moisture level - less than or equal to 7%
 pH - 6.7 ± 0.2 at 25°C
 Clarity - clear
 Gel strength - firm, comparable to 14.5g/litre of agar

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Microbiological Tests Using Optimum Inoculum Dilution

Medium is challenged with 1E+04 to 1E+06 colony-forming units

Reactions after incubation at 37°C for 24 hours

Organism		Slope	Butt	H ₂ S
<i>Escherichia coli</i>	ATCC® 25922	Alk	A/NC	- ve
<i>Shigella sonnei</i>	ATCC® 25931	Alk	A	- ve
<i>Salmonella arizonae</i>	ATCC® 13314	Alk	Alk	+ ve
<i>Salmonella typhimurium</i>	ATCC® 14028	Alk	Alk	+ ve
<i>Klebsiella pneumoniae</i>	ATCC® 29665	Alk	Alk	- ve
<i>Proteus mirabilis</i>	ATCC® 29906	Red	A	-ve / slight + ve
<i>Proteus mirabilis</i>	ATCC® 12453	Red	A	-ve / slight + ve
<i>Shigella flexneri</i>	ATCC® 29903	Alk	A	- ve
<i>Citrobacter freundii</i>	ATCC® 8090	Alk	A	+ ve
<i>Enterobacter aerogenes</i>	ATCC® 13048	Alk	Alk	- ve
<i>Enterobacter cloacae</i>	ATCC® 23355	Alk	A	- ve

Reactions after incubation at 37°C for 48 hours

Organism		Slope	Butt	H ₂ S
<i>Klebsiella pneumoniae</i>	ATCC® 29665	Alk	Alk	- ve

A satisfactory result is represented by reactions in accordance with the specification.

KEY

A	=	Acid (yellow)
NC	=	No change
Alk	=	Alkaline (purple)
Red	=	Lysine deamination


Red slope over an acid butt is produced due to deamination of the lysine.

Hydrogen sulphide (H₂S)

Positive	=	Blackening
Negative	=	No blackening

H₂S producing *Proteus* species may not blacken this medium.

Additional challenging strains are employed.

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Revision History

Section / Step	Description of Change	Reason for Change	Reference
Entire Document	Update to <i>Proteus mirabilis</i> specification	Change control	BT-CC-1572
Entire Document	Correction of typographical/minor errors. Change NCTC8297 to ATCC®13314	Change control	BT-CC-1924