

BT-SPEC-0061

Distribution: Central File

Date: 15/03/11

Supersedes: 26/01/04

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

KLIGLER IRON AGAR

CM0033

Typical Formula*

'Lab-Lemco' powder	grams per litre	3.0
Yeast extract		3.0
Peptone		20.0
Sodium chloride		5.0
Lactose		10.0
Glucose		1.0
Iron (III) citrate		0.3
Sodium thiosulphate		0.3
Phenol red		0.05
Agar		12.0

* adjusted as required to meet performance standards

Directions

Suspend 55g in 1 litre of distilled water. Bring to the boil to dissolve completely. Mix well and distribute into final containers. Sterilize by autoclaving at 121°C for 15 minutes. Allow to set as slopes with 2.5cm butts.

Physical Characteristics

Straw/orange, free-flowing powder

Colour on reconstitution - red

Moisture level - less than 7%

pH 7.4 ± 0.2 at 25°C

Clarity - clear

Gel strength - firm, comparable to 12.0g/litre of agar

Microbiological Tests Using Optimum Inoculum Dilution

Reactions after incubation at 37°C for 18 hours

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

	Slope	Butt	H ₂ S	Gas
<i>Escherichia coli</i> ATCC® 25922	A	AG	Negative	Positive
<i>Klebsiella pneumoniae</i> ATCC® 13883	A	AG	Negative	Positive
<i>Citrobacter freundii</i> ATCC® 8090	A	AG	Positive	Positive
<i>Salmonella typhimurium</i> ATCC® 14028	NC/Alk	AG	Positive	Positive

	Slope	Butt	H₂S	Gas
<i>Salmonella enteritidis</i> ATCC® 13076	NC/Alk	AG	Positive	Positive
<i>Proteus mirabilis</i> ATCC® 29906	NC/Alk	A	Positive	Negative
<i>Shigella sonnei</i> ATCC® 25931	NC/Alk	A	Negative	Negative
<i>Shigella flexneri</i> ATCC® 12022	NC/Alk	A	Negative	Negative
<i>Pseudomonas aeruginosa</i> ATCC® 27853	NC	Alk/NC	Negative	Negative
<i>Alcaligenes faecalis</i> ATCC® 19018	Alk	Alk	Negative	Negative

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

Key

AG	=	Acid (yellow) with gas formation
A	=	Acid (yellow)
NC	=	No change
Alk	=	Alkaline (red)

Hydrogen sulphide (H₂S)

Positive	=	Blackening
Negative	=	No blackening

Gas

Positive	=	Bubbles or splitting of agar
Negative	=	No bubbles or splitting of agar