

# Kligler Iron Agar (KIA)

## Double Sugar Iron Agar acc. to Kligler

TN 1146 500 g



### Intended use

Used to differentiate gram-negative bacteria, in particular Enterobacteriaceae.

### Form

Powder

### Colour

Orange

### Storage

Dry, tightly closed, at 10...25 °C.

### Shelf life

4 years

### Typical composition

Component	g/l
Peptone	23
Yeast extract	3
Glucose	1
Lactose	10
Iron (II) sulfate	0.2
Sodium chloride	5
Sodium thiosulphate	0.3
Phenol red	0.05
Agar	7

### Directions

Suspend 49.6 g in 1 litre distilled water and heat until completely dissolved. Distribute into tubes and autoclave at 121 °C for 15 minutes. Allow to set as slant agar with approximately equal length of butt and slant.

### Directions for Kligler Urea Agar acc. to Bader and Hotz

Suspend 49.6 g in 1 litre distilled water and heat until completely dissolved. Autoclave at 121 °C for 15 minutes and cool down to 45-50 °C. Add 1 bottle of Urea Solution 40% (TN 1308) per litre of culture medium (final urea concentration: 2%). Mix well and fill into sterile tubes. Allow to set as slant agar with approximately equal length of butt and slant.

### Final pH at 25 °C

7.8 ± 0.2

### Microbiological quality control

Incubate Kligler Iron Agar (KIA) (Double Sugar Iron Agar acc. to Kligler) aerobically for 18-24 hours at 36 ± 1 °C.

Test strain	Slant surface (lactose utilisation)	Butt (glucose utilisation)	Gas formation	H <sub>2</sub> S formation
<i>Salmonella</i> Paratyphi	red (-)	yellow (+)	+	+
<i>Salmonella</i> Typhi	red (-)	yellow (+)	-	+
<i>Shigella dysenteriae</i>	red (-)	yellow (+)	-	-
<i>Escherichia coli</i>	yellow (+)	yellow (+)	+	-
<i>Proteus mirabilis</i>	red (-)	yellow (+)	+	+
<i>Pseudomonas aeruginosa</i>	red (-)	red (-)	-	-

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