

Technical Data Sheet

Kligler Agar (Double sugar iron agar acc. to Kligler)

Ordering number: 1.03913.0500

Kligler agar is a test culture medium proposed by Kligler (1917, 1918) for the differentiation and identification of enteric Gram-negative intestinal bacteria from clinical specimen.

IVD in vitro diagnosticum - For professional use only

Mode of Action

Degradation of sugar and accompanying acid production are detected by the pH indicator phenol red, which changes its color from red-orange to yellow. On alkalization it turns deep red. Thiosulfate is reduced to hydrogen sulfide by several species of bacteria. The hydrogen sulfide reacts with an iron salt to give black iron sulfide.

Kligler agar can be modified as proposed by Bader and Hotz (1951) by adding 0.2 % urea to give iron-urea agar.

Typical Composition

Peptone from Casein	15 g/l
Peptone from Meat	5 g/l
Meat Extract	3 g/l
Yeast Extract	3 g/l
NaCl	5 g/l
Lactose	10 g/l
D(+)-Glucose	1 g/l
Ammonium Iron(III) Citrate	0.5 g/l
Sodium Thiosulfate	0.5 g/l
Phenol Red	0.024 g/l
Agar-Agar	12 g/l

Preparation

Suspend 55 g/l. Dispense into test tubes. Autoclave 15 min at 121 °C. Allow to solidify to give sugar slants.

The appearance of the plates is clear and red.

The pH of the single-strength broth at 25 °C is in the range of 7.2 -7.6.

Specimen

e.g. Isolated bacteria from stool, .

Clinical specimen collection, handling and processing. See general instructions of use.

Experimental Procedure and Evaluation

Streak the pure culture under investigation on the sloped surface and inoculate the butt of the same tube by a central stab.

Incubation: up to 48 h at 35 °C aerobically.

Storage

The product can be used for sampling until the expiry date if stored upright, protected from light and properly sealed at +15 °C to +25 °C.

After first opening of the bottle the content can be used up to the expiry date when stored dry and tightly closed at +15 to +25° C.

Disposal

Please mind the respective regulations for the disposal of used culture medium (e.g. autoclave for 20 min at 121 °C, disinfect, incinerate etc.).

Quality Control

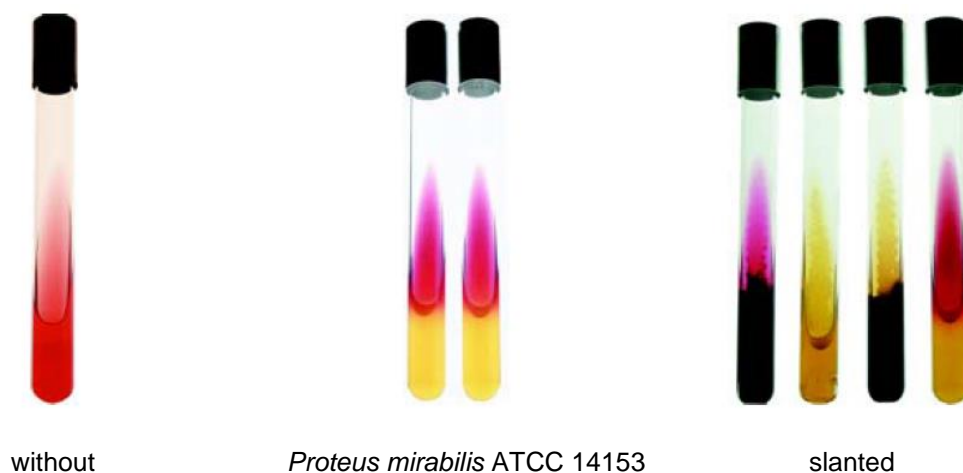
Control Strains	ATCC #	Incubation	Expected Results
<i>Escherichia coli</i>	25922	24 h at 35 °C	Growth good to very good, yellow butt, yellow slant surface
<i>Citrobacter freundii</i>	8090	24 h at 35 °C	Growth good to very good, yellow and black butt, yellow slant surface
<i>Enterobacter cloacae</i>	13047	24 h at 35 °C	Growth good to very good, yellow butt, yellow slant surface
<i>Shigella flexneri</i>	12022	24 h at 35 °C	Growth good to very good, yellow butt, red slant surface
<i>Salmonella typhimurium</i>	14028	24 h at 35 °C	Growth good to very good, yellow and black butt, red slant surface
<i>Salmonella enteritidis</i>	13076	24 h at 35 °C	Growth good to very good, yellow and black butt, red slant surface
<i>Proteus mirabilis</i>	14153	24 h at 35 °C	Growth good to very good, yellow butt, red slant surface
<i>Proteus hauseri</i>	13315	24 h at 35 °C	Growth good to very good, yellow and black butt, red slant surface

Please refer to the actual batch related Certificate of Analysis.



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Literature

Bader, R.E. and Hotz, G. (1951). Iron-urea agar, a modification of Kligler's iron agar. Z. Hyg. Infektionskr. **133**: 20-25.

Kligler, I.J. (1917). A simple medium for the differentiation of members of typhoid-paratyphoid group. Am. J. Publ. Health, **7**: 1042-1044.

Kligler, I.J. (1918). Modification of culture media used in the isolation and differentiation of typhoid, dysentery and allied bacilli. J. Exper. Med. **28**: 318-322.

Ordering Information

Product	Cat. No.	Pack size
Kligler Agar (Double sugar iron agar acc. to Kligler)	1.03913.0500	500 g
Urea	1.08487.0500	500 g

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