ProductInformation

KLIGLER IRON AGAR

Product Number **K2260**

Product Description

Kligler Iron Agar is recommended as a differential medium in the study of the gram-negative intestinal microorganisms, on the basis of their fermentative ability for dextrose and lactose; and for their ability to produce H_2S. Kligler Iron Agar differentiates the lactose fermenters from the non-lactose fermenters. It also differentiates *Salmonella typhi* from other Salmonellae, and it differentiates *Salmonella paratyphi A* from *Salmonella schottmuelleri and Salmonella enteritidis.* Sodium thiosulphate and ferrous sulphate accelerate H_2S production. Phenol red is the pH indicator. Fermentation of dextrose is indicated by a yellow butt. Fermentation of lactose is indicated by a yellow slant and H_2S production is indicated by a blackening in the butt.

Components

Item	g/L
Peptic Digest of Animal Tissue	15.00
Beef Extract	3.00
Yeast Extract	3.00
Proteose Peptone	5.00
Lactose	10.00
Dextrose	1.00
Ferrous Sulphate	0.20
Sodium Chloride	5.00
Sodium Thiosulphate	0.30
Phenol Red	0.024
Agar	15.00

Final pH (at 25°C) 7.4 ± 0.2

Precautions and Disclaimer

For laboratory use only. Not for drug, household or other uses.

Preparation Instructions

Suspend 57.5 grams of Kligler Iron Agar in 1000 mls of distilled water. Mix well and distribute into tubes. Sterilize by autoclaving at 15 lbs. pressure (121°C) for 15 minutes. Coll the tubes to set as slopes with 1 inch butts. Do not use screw-capped tubes or bottles.

Storage

Store the dehydrated medium at 24°C and the prepared medium at 2-8°C.

Product Profile

Appearance	Light pink colored, homogeneous, free flowing powder.
Gelling	Firm.
Color and Clarity	Red colored, clear to slightly opalescent gel forms as slants in tubes.
Cultural Response	Cultural chacteristics observed after 18-24 hours at 37°C.

Organisms	Growth	Slant	Butt
Salmonella enteritidis	luxuriant	K	A
Salmonella paratyphi A	luxuriant	K	A
Shigella flexneri	luxuriant	K	A
Enterobacter aerogenes	luxuriant	A	A
Escherichia coli	luxuriant	A	A
Citrobacter freundi	luxuriant	A	A
Klebsiella pneumoniae	luxuriant	A	A
Proteus vulgaris	luxuriant	K	A
Salmonella schottmuelleri	luxuriant	K	A
Salmonella typhi	luxuriant	K	A

	Gas	**H_2S**
Salmonella enteritidis	+	+
Salmonella paratyphi A	+	-
Shigella flexneri	-	-
Enterobacter aerogenes	+	-
Escherichia coli	+	-
Citrobacter freundi	+	+
Klebsiella pneumoniae	+	-
Proteus vulgaris	-	+
Salmonella schottmuelleri	+	+
Salmonella typhi	-	+

Key:
A= acid production (yellow)
K= alkaline reaction (red)
+ = blackening
- = no change

References:

1. Kligler, I.J., (1917). Am.J. Publ. Health. 7, 1042.
2. Kligler J.J., (1918). . Exp. Med. 28, 319.
3. Russell, F.F., (1911).J. Med. Res. 25, 217.
4. Bailey, S.F., et al., (1927). J. Bact. 13,182.