

# KCN Broth



Medium used for the identification and determination of *Enterobacteriaceae* on the basis of KCN tolerance.

## • CONTENTS (Liter)

Pancreatic Digest of Casein	1.5 g
Peptic Digest of Animal Tissue	1.5 g
Sodium Chloride	5.0 g
Monopotassium Phosphate	0.225 g
Disodium Phosphate	5.64 g
Final pH = 7.9 ± 0.2 at 25°C	

## • PROCEDURE

Suspend 13.87 G powder in 1 L of distilled or deionized water. If necessary, adjust pH to 7.6 ± 0.2. Heat to boiling until completely dissolved. Sterilize by autoclave at 121°C for 15 minutes. Cool to 45 - 50°C in water bath. Aseptically add 2 vials of KCN supplement (MB-K3018). Pour into tubes. KCN is highly toxic, so always be careful when using KCN. Work must be performed in a hood.

### KCN supplement

1 vial contents (each vial is sufficient for 500 mL of medium)

KCN (Potassium Cyanide) 0.0375 g

## • INTERPRETATION

KCN Broth is a medium used for the identification and determination of *Enterobacteriaceae* on the basis of KCN tolerance. Pancreatic digest of casein and peptic digest of animal tissue provide nitrogen, amino acids, vitamins and minerals. Sodium chloride maintains the osmotic balance. Monopotassium phosphate and disodium phosphate are the buffering agents. Mineral oil overlay may be helpful to prevent false reactions by protecting the surface of the medium from the air.

## • TECHNIC

Inoculate the specimen using a sterile needle to the medium. Mix well and if necessary, overlay the tubes with 1 mL of sterile mineral oil. Incubate at 35 ± 2°C for 18 - 48 hours. Refer appropriate references for recommended test procedure.

## • QUALITY CONTROL FOR USE

### Dehydrated medium

Appearance: free-flowing, homogeneous

Color: light beige

### Prepared medium

Appearance: clear to slightly opalescent

Color: colorless to very light amber

Incubation conditions: 35 ± 2°C / 18 - 48 hours

Microorganism	ATCC	Growth w/o KCN	Growth w/ KCN
<i>Citrobacter freundii</i>	8090	good	good
<i>Klebsiella pneumoniae</i>	13883	good	good
<i>Salmonella enteritidis</i>	NCCP 12236	good	inhibited
<i>Shigella flexneri</i>	12022	good	inhibited
<i>Escherichia coli</i>	25922	good	inhibited

## • STORE

The powder is very hygroscopic. Store the powder at room temperature, in a dry environment, in its original container tightly closed and use it before the expiry date on the label. Store prepared medium at 2 - 8°C.

## • REFERENCES

1. Moeller, V. 1954. Diagnostic use of the Braun KCN test within the Enterobacteriaceae. Acta Pathol. Microbiol. Scand. 34:115-126.
2. Ewing, W.H. 1986. Edwards and Ewing's identification of Enterobacteriaceae, 4th ed. Elsevier Science Publishing Co., Inc., New York.
3. Gershamand Cn. J. Microbiol, 1. 1960.
4. MacFaddin, J.F. 2000. Biochemical tests for identification of medical bacteria, 3rd ed. Lippincott Williams & Wilkins, Baltimore.

## • PACKAGE

Cat. No : MB-K0960 KCN Broth	500 G
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