Chaitanya Group Of Industries

ReadyMED®
Dehydrated Cell Culture Media

Technical Data Sheet

Koser Citrate Medium RDM-KCM-01

Principle
Koser citrate medium is described by Koser (1923), media composed of sodium ammonium phosphate, monobasic potassium phosphate, magnesium sulfate, sodium citrate. This media lacks organic carbon and nitrogen source. Sodium ammonium phosphate and sodium citrate are source of carbon and nitrogen. Monobasic potassium phosphate and sodium ammonium phosphate act as buffering agent. Magnesium sulfate is source of ions.

Use: Recommended for differentiating *Escherichia coli* from *Enterobacter aerogenes* based on citrate utilization.

Contents*

Ingredients	**Gram/Litre**
Sodium Ammonium Phosphate	1.500
Monobasic Potassium Phosphate	1.000
Magnesium Sulfate	0.200
Sodium Citrate	3.000
pH at 25˚C	6.8 ±0.2

* Formula adjusted for optimum performance and parameters

Directions: Dissolve 5.7 grams in 1000 ml distilled water, boil to dissolve the medium completely and distribute aseptically in test tubes. Sterilize by autoclaving at 15 lbs pressure (121 °C) for 15 min, cool it to 42-45 °C and inoculate test sample aseptically.

Specimens types analyzed
Pharmaceutical samples, clinical and non-clinical samples etc.

Precautions to be taken
These microbial media are intended for the in-vitro use only. All the handling, experiments, storage, and discarding should be performed with the help of skilled and knowledgeable technicians and as per the established guidelines. The material should be disposed only after proper sterilization by autoclaving. Please go through the MSDS of the media to avoid any accidents or in emergency.

Performance and Evaluation
The expected performance of the medium is liable to use as per the direction on the label when stored at optimum conditions and within expiry date.

Quality Control

Appearance	White colored free flowing, homogeneous powder
Reaction of 0.57% solution	6.8 ±0.2 at 25 ˚C
pH	6.50- 6.90
Color and clarity of ready medium	Colorless clear solution
Growth Promotion properties	Best at ≤ 100 CFU at 32-37 ºC for 18-72 h
Indicative properties	Optimum at ≤ 100 CFU at 32-37 ºC for 18-48 h
Negative control	Performed using sterile distilled water

Different Microbial Response

Organism	Inoculum	Growth	Citrate utilization	Incubation period
Enterobacter aerogenes (ATCC 13048)	50-100	Luxurious	Turbidity (positive reaction)	33-37 ℃, 18-48 h
Escherichia coli (ATCC 8739)	50-100	Inhibited	No turbidity (Negative reaction)	33-37 ℃, 18-48 h

Storage and Shelf Life

Hygroscopic; keep container tightly closed. Store in cool dry place.

Disposal: To avoid the contamination or propagation of any hazardous microbes the used, unusable or modified preparation of this product must be disposed after autoclaving after completion of task.

Reference

1. Atlas, R. M. (2005). *Handbook of media for environmental microbiology*. CRC press.
2. *Difco Manual* (1998). 11th Edition. Difco Laboratories., Division of Becton Dickinson and Company, Sparks, Maryland, USA.
3. Koser, S. A. (1923). *Utilization of the salts of organic acids by the colon- aerogenes group.* J. Bacteriol. 8:493-520.

CHAITANYA AGRO BIOTECH PVT. LTD. An ISO 11134:2014, ISO 13485:2016, ISO 9001:2015 CE, CIN NO.: U24210MH1995PTC095220S,
S. No. 120/2, Laxmi Nagar, Umbarnala Road, Malkapur-443101, Dist.: Buldana (M.S.) India. Customer Care +91-8669083859
rdmsales@chaitanyagroupindia.com, mkt.cabt@chaitanyagroupindia.com, www.chaitanyagroupindia.com