PRODUCT SPECIFICATION SHEET

King's OF Medium Base (DM331)

Intended Use
King's OF Medium Base (DM331) is recommended for studying oxidation-fermentation of carbohydrates by *Campylobacter* species.

Product Summary and Explanation
Campylobacter is a gram-negative, motile bacterium that cause a gastrointestinal infection called campylobacteriosis when it gets lodged in the walls of intestine. The bacteria normally inhabit the intestinal tract of warm-blooded animals such as poultry and cattle, and are frequently detected in foods derived from these animals. Although raw milk is a frequently reported vehicle of outbreaks of *Campylobacter enteritis*, studies have revealed that mishandled poultry is more important than raw milk in transmitting *Campylobacter jejuni* enteritis.[1,2,3] For the identification of an organism genus and species the utilization pattern for several carbohydrates (e.g. lactose, maltose, xylose, sucrose etc) is often needed. Kings OF Medium is designed as recommended by APHA for studying the oxidation-fermentation reaction of carbohydrates by *Campylobacter* species.[4]

Principles of the Procedure
Carbon Utilisation Agar contains casein enzymic hydrolysate which is a source of nitrogenous compounds required for the growth of *Campylobacter* species. Phenol red is the pH indicator. Oxidation of carbohydrate is indicated by a yellow colour formation.

Formula / Liter

Ingredients	Gms / Liter
Casein enzymic hydrolysate	0.20
Phenol red	0.003
Agar	0.30
Final pH: 7.4 ± 0.2 at 25°C	
Formula may be adjusted and/or supplemented as required to meet performance specifications	

Precautions
1. For Laboratory Use only.
2. IRRITANT. Irritating to eyes, respiratory system, and skin.

Directions
1. Suspend 0.5 grams of the medium in one litre of distilled water.
2. Heat if necessary to dissolve the medium completely.
3. Autoclave at 121°C, 15 psi pressure, for 15 minutes / validated cycle.
4. Cool to 40-50°C and aseptically add filter sterilized solution of desired carbohydrate to get a final concentration of 1% and dispense in sterile tubes.

Quality Control Specifications

Dehydrated Appearance	Light yellow to beige homogeneous free flowing powder
Prepared Medium	Light pink coloured, clear to slightly opalescent gel forms in tubes as butts
Reaction of 0.05% Solution	pH : 7.4 ± 0.2 at 25°C
Gel Strength	Semisolid,comparable with 0.03% Agar gel

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Expected Cultural Response: Cultural characteristics observed with added Dextrose under reduced oxygen atmosphere, after an incubation at 42°C for 24-48 hours.

Sr. No.	Organisms	Results to be achieved	
		Growth	Acid (with dextrose)
1.	*Campylobacter jejuni ATCC 29428*	good-luxuriant	positive reaction, yellow colour

The organisms listed are the minimum that should be used for quality control testing.

Test Procedure
Refer appropriate references for specific test procedures.

Results
The medium will be yellow (acid) when removed from the microaerobic atmosphere due to CO_2 absorption. To read OF reactions, let the tubes stand at room temperature until the OF control becomes neutral or alkaline, usually within 2 hours. Refer appropriate references and test procedures for interpretation of results.

Storage
Store the sealed bottle containing the dehydrated medium at 2 - 30°C. Once opened and recapped, place container in a low humidity environment at the same storage temperature. Protect from moisture and light.

Expiration
Refer to the expiration date stamped on the container. The dehydrated medium should be discarded if not free flowing, or if the appearance has changed from the original color. Expiry applies to medium in its intact container when stored as directed.

Limitations of the Procedure
1. For identification, organisms must be in pure culture. Morphological, biochemical and/or serological tests should be performed for final identification.
2. Consult appropriate texts for detailed information and recommended procedures.

Packaging
Product Name : King's OF Medium Base
Product Code : DM331
Available Pack sizes : 100gm / 500gm

References

1. Shirling E. B. and Gottlieb D., 1966, Methods for Characterization of Streptomyces species, Int. J. Syst. Bacteriol., 16:313.
2. Atlas R. M., 1993, Handbook of Microbiological Media, Parks L.C. (Ed .), CRC Press, Inc.

Further Information
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DM331PSS,QAD/FR/024,Rev.00/01.01.2018

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