73009 ECC *ChromoSelect* Agar

A differential medium for presumptive identification of *E. coli* and other coliforms in food and enviromental samples.

Composition:

Ingredients	Grams/Litre
Peptone, special	5.0
Yeast extract	3.0
Lactose	2.5
Disodium hydrogen phosphate	3.5
Monopotassium hydrogen phosphate	1.5
Sodium chloride	5.0
Chromogenic mixture	20.3
Neutral red	0.03
Agar	15.0
Final pH (at 25 °C) 6.8 ± 0.2	

Store prepared media below 8°C, protected from direct light. Store dehydrated powder, in a dry place, in tightly-sealed containers at 2-25°C.

Directions:
Suspend 55.8g in 1 litre distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 121°C for 15 minutes. Cool to 50°C and pour into sterile petri plates.

Principle and Interpretation:
ECC *ChromoSelect* Agar is a differential medium recommanded for the presumptive identification of *E. coli* and other coliforms in food and enviromental samples.
The chromogenic mixture contains two chromogens as X-glucuronide and Salmon-GAL. X-glucuronide is cleaved by the the enzyme β-glucuronidase produced by *E. coli*. Salmon-GAL is cleaved by the enzyme galactosidase produced by the mamajority of coliforms, including *E. coli*.
Peptone special, yeast extract provide nitrogenous substances, vitamin B complex and other essential growth nutrients. Lactose is the fermentable carbohydrate, which aids in detecting lactose fermenters with neutral red as an indicator. Disodium hydrogen phosphate and potassium dihydrogen phosphate buffer the medium well. Sodium chloride maintains the osmotic equilibrium.
The surface of the plated medium is dried before use. Dilute food samples 1: 5 or 1:10 with 0.1% (w/v) sterile Peptone Water (Cat. No. 70179) and homogenize in a blender or a stomacher. Pipette 0.5 ml or 1.0 ml of the homogenate on the plate and spread with sterile glass spreader. Incubate the plates at 30°C for 18-24 hours. Count the blue/purple colonies and multiply with dilution factor. The number of *E. coli* are reported per gram of food.
The medium should be used only for in-vitro diagnostic purpose. Wear mask while handling the dehydrated product and avoid contact with eyes.

Cultural characteristics after 18-24 hours at 37°C.

Organisms (ATCC)	Growth	Colour of colony
Escherichia coli (25922)	luxuriant	blue/purple
Klebsiella pneumoniae (13883)	luxuriant	rose pink
Pseudomonas aeruginosa (27853)	luxuriant	straw

References:
1. Kilian M. and Bülow P., 1976, Acta. Pathol. Microbiol. Scand., Sect. B, 84:245.
2. Kilian M. and Bülow P., 1976, Acta. Pathol. Microbiol. Scand., Sect. B, 87:271.
3. Frampton E.W., Restaino L. and Blaszko N, 1988, J. Food Prot.., 51:402.

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.