81938 Coliform *ChromoSelect* Agar

Coliform *ChromoSelect* Agar is recommended for the simultaneous detection of *Escherichia coIi* and total coliforms in water and food samples.

Composition:

Ingredients	Grams/Litre
Peptone, special	3.0
Sodium chloride	5.0
Dipotassium hydrogen phosphate	3.0
Potassium dihydrogen phosphate	1.7
Sodium pyruvate	1.0
Tryptophan	1.0
Sodium lauryl sulphate	0.1
Chromogenic mixture	0.2
Agar	12.0

Final pH (at 25 °C) 6.8 ± 0.2
Store below 8°C. Use before expiry date on the label.

Directions :
Suspend 27g in 1 litre distilled water. Heat to boiling, to dissolve the medium completely. Sterilize by autoclaving at 121°C for 15 minutes. When a high number of gram-positive accompanying bacteria are expected, add 5mg/I Novobiocin (Cat. No 74675) before autoclaving of the medium.

Principle and Interpretation:
Coliform *ChromoSelect* Agar is a selective medium recommended for the simultaneous detection of *Escherichia coli* and total coliforms in water and food samples.
Peptone special, sodlum pyruvate provide essential growth nutrients to the organisms. The phosphates buffer the medium well. The medium composition helps even the sublethally injured coliforms to grow rapidly. Sodium lauryl sulphate inhibits gram-positive organisms.
The chromogenic mixture contains two chromogenic substrates as Salmon-GAL and X-glucuronide. The enzyme ß-D-galactosidase produced by coliforms cleaves Salmon-GAL, resulting in the salmon to red colouration of coliform colonies. The enzyme ß-D-glucuronidase produced by E. coli, cleaves X-glucuronide. *Escherichia coli* forms dark blue to violet coloured colonies due to cleavage of both Salmon-GAL and X-glucuronide. The addition of tryptophan improves the indole reaction, thereby increasing detection reliability in combination with the two Chromogens. To confirm *Escherichia coIi*, add a drop ot Kovac's reagent (Cat. No 60983) on the dark-blue to violet colony. Formation of cherry-red colour indicates the positive reaction.

Cultural characteristics after 24 hours (48 hours if necessary) at 35 to 37°C.

Organisms (ATCC)	Colour of Colony	Salmon-GAL	X-Gluguronide	Indole
Escherichia coli (25922)	dark blue/violet	+	+	+
Enterobacter cloacae (13047)	salmon to red	+	-	-
Citrobacter freundii (8090)	salmon to red	+	-	-
Klebsiella pneumoniae (13883)	light pink	+	-	-
Salmonella enteritidis (13076)	colourless	-	-	-
Shigella flexneri (12022)	colourless	-	-	-
Enterococcus faecalis (29212)	inhibited	-	-	-

References:
1. Frampton E.W., Restaino L. and Blaszko N., 1988, J. Food Prot., 51:402
2. Kilian M. and Bülow P., 1976, Acta. Pathol. Microbiol. Scand., Sect. B, 84:245
3. LeMinor L. and Hamida F., 1962, Ann. Inst. Pasteur (Paris), 102:267
4. Manafi M. and Kneifel W., 1989, Zentralbl. Hyg., 189:225.

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.