90918 RajHans *ChromoSelect* Medium, Modified (Salmonella *ChromoSelect* Medium, Modified; Salmonella RajHans *ChromoSelect* Medium, Modified)

RajHans *ChromoSelect* Medium modified is recommended for identification and differentiation of *Salmonella* species from the members of *Enterobacteriaceae*, especially *Proteus* species.

Composition:

Ingredients	Grams/Litre
Casein enzymic hydrolysate	8.0
Yeast extract	5.0
Peptic digest of animal tissue	4.0
Sodium chloride	5.0
Sodium deoxycholate	1.0
Neutral red	0.02
Lactose	3.0
Chromogenic mixture	4.32
Agar	12.0
Final pH 7.3 +/- 0.2 at 25°C	

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.

Appearance: Pinkish yellow to beige coloured, homogeneous, free flowing powder.
Gelling: Firm
Color and Clarity: Light orange coloured, clear to slightly opalescent gel forms in petri plates.

Directions:
Suspend 42.34 g in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. DO NOT AUTOCLAVE. Cool to 45-50°C, mix well and pour into sterile petri plates.

Principle and Interpretation:
RajHans *ChromoSelect* Medium, Modified is a modification of the original formulation of Rambach (1), used for differentiation of *Salmonella* species from *Proteus* species and other enteric bacteria. The original formulation is based on the novel characteristic of *Salmonella* species to produce acid from propylene glycol, which is detected by indicators pesent in the medium. This medium is unique, because it is not based on acid production by propylene glycol. This medium like many other media such as SS Agar, XLD Agar, recommended for the identification and differentiation of *Salmonella* species are based on lactose fermentation (2). Casein enzymic hydrolysate, yeast extract and peptic digest of animal tissue supports the luxuriant growth of bacteria by providing carbonaceous, nitrogenous, vitamin B complex and other essential nutrients. Sodium deoxycholate inhibits gram positive organisms rendering the medium selective for enteric microorganisms. Sodium chloride maintains the osmotic equilibrium of the medium. Lactose is the fermentable sugar and to detect the acid production of the fermentation process the pH indicator neutral red is used. The chromogenic mixture incorporated in the medium yields pink to red colonies of *Salmonella*. Lactose fermenting organisms form light purple to blue violet colonies. Other enteric gram negative bacteria form colorless colonies.

Cultural characteristics after 24-48 hours at 35-37°C.

Organisms (ATCC)	Growth	Color of Colony
Escherichia coli (25922)	+++	light purple
Klebsiella pneumoniae (13883)	+++	blue-violet
Proteus mirabilis (25933)	+++	colorless
Salmonella serotype Typhi (6539)	+++	colorless
Salmonella serotype Typhimurium (14028)	+++	pink-red
Salmonella serotype Enteritidis (13076)	+++	pink-red
Shigella flexneri (12022)	+++	colorless
Staphylococcus aureus (25923)	-	-

References:

1. A. Rambach, Environment. Microbiol., 56, 301 (1990)
2. A.E. Greenberg, R.R. Trussel , L.S. Clesceri, (Eds.), Standard Methods for the Examination of water and waste water, 16th ed., APHA, Washington, D.C. (1985)

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.