92325 Bacillus *ChromoSelect* Agar (Bacillus cereus *ChromoSelect* Agar)

Bacillus *ChromoSelect* Agar is a differential medium recommended for rapid identification of *Bacillus* species from a mixed culture by chromogenic method.

Composition:

Ingredients	Grams/Litre
Peptic digest of animal tissue	10.0
Meat extract	1.0
D-Mannitol	10.0
Sodium chloride	10.0
Chromogenic mixture	3.2
Phenol Red	0.025
Agar	15.0
Final pH 7.1 +/- 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:	Faintly pinkish-beige coloured, homogeneous, free flowing powder.
Gelling:	Firm
Color and Clarity:	Red coloured clear to slightly opalescent gel forms in petri plates.

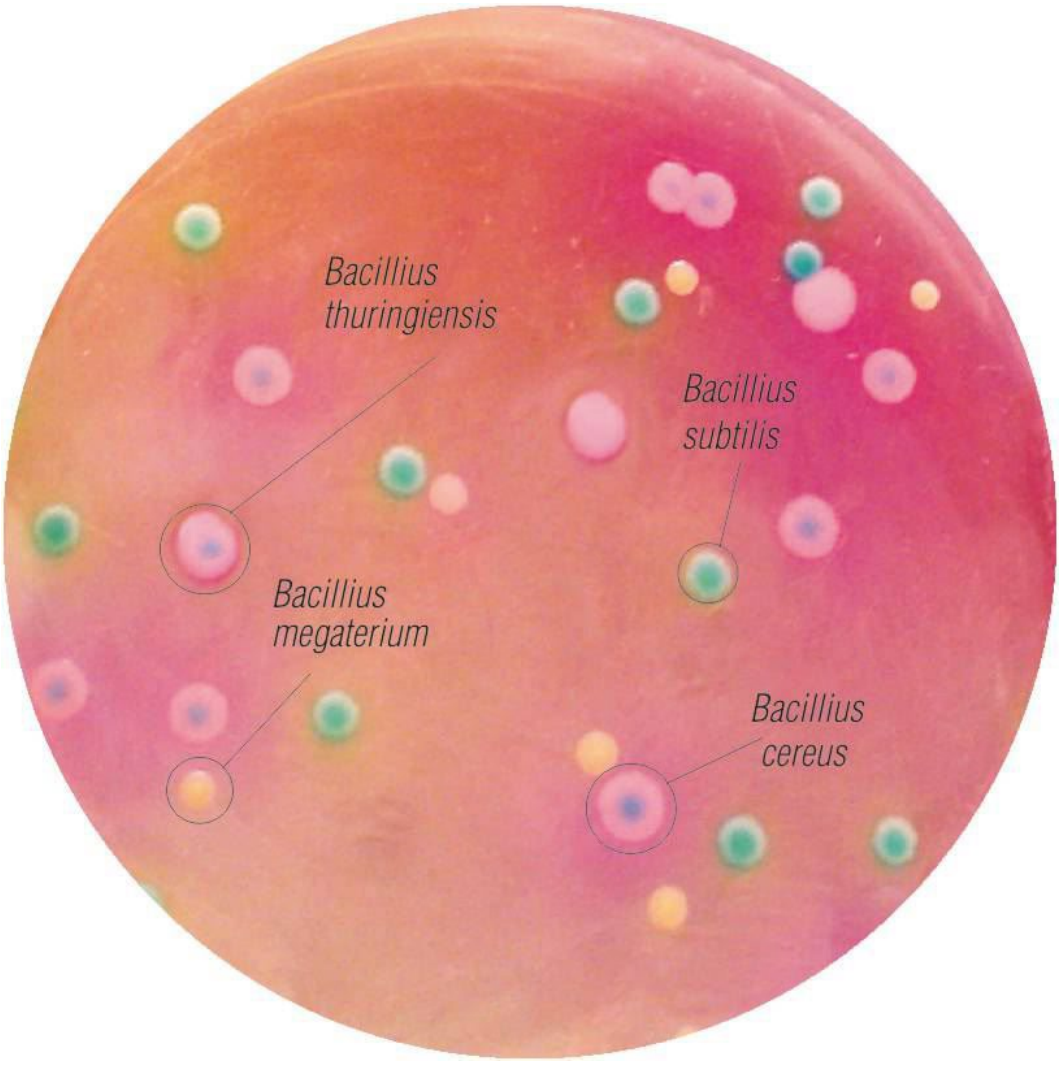
Directions:
Suspend 49.2 g in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. DO NOT AUTOCLAVE. Cool to 45-50°C and aseptically add the rehydrated contents of 1 vial of Polymyxin B Selektiv-Supplement (Cat. No. P9602) if desired. Mix well and pour into sterile petri plates.

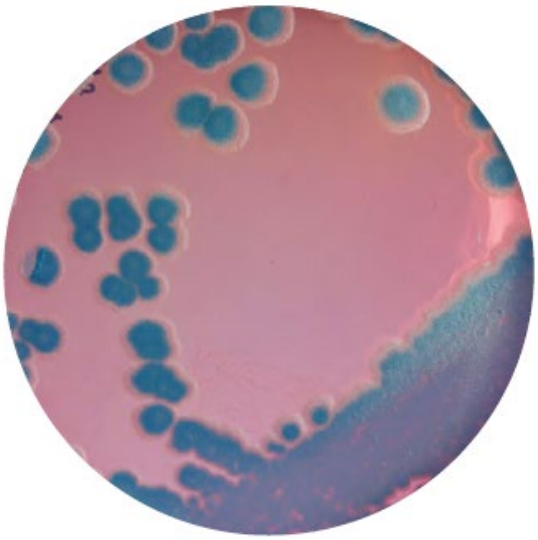
Principle and Interpretation:
Bacillus *ChromoSelect* Agar is based on the formulation of MYP Agar formulated by Mossel et al (1) used for enumeration of *Bacillus cereus* and *Bacillus thuringiensis* when present in large number in certain foodstuffs. *B. cereus* causes food poisoning due to consumption of contaminated rice (1,2,3) eye infections and a wide range of other clinical conditions like abscess formation, meningitis, septicaemia and wound infection. The medium contains peptic digest of animal tissues and meat extract, which provide nitrogenous compounds. Mannitol serves as the fermentable carbohydrate, fermentation of which can be detected by the pH indicator phenol red. Mannitol fermenting organisms like *B. megateruim* yield yellow coloured colonies. The chromogenic mixture present in the medium is cleaved by the enzyme β-glucosidase found in *B. cereus* resulting in the formation of blue colonies. *B. thuringiensis* will also grow as blue/green colonies on this medium as *B. cereus* and *B. thuringiensis* are biochemically identical. If selective isolation of *B. cereus* or *B. thuringiensis* is required aseptically add polymyxin B.

Cultural characteristics after 24-48 hours at 30°C.

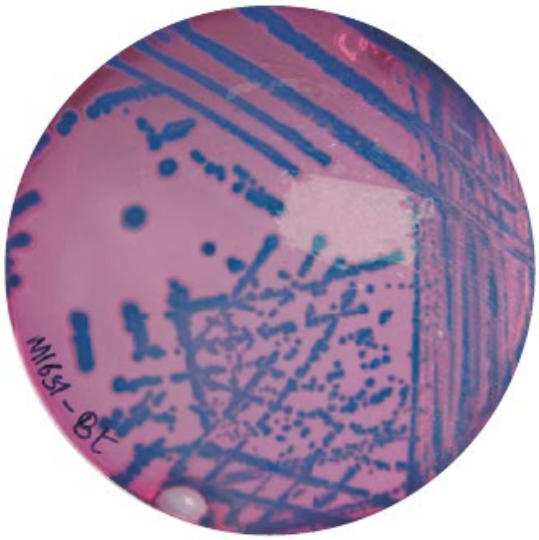
Organisms (ATCC)	Growth**	Growth*	Color of Colony
Bacillius subtilis (6633)	-	+/++	light green to green colonies
Bacillius cereus (10876)	+++	+++	light blue, large, flat colonies with blue centre
Bacillius thuringiensis (10792)	+++	+++	light blue, large, flat colonies with irregular margins
Bacillius megaterium (14581)	-	+++	yellow, mucoid colonies
Bacillius coagulans (7050))	-	+++	pink, small, raised colonies
Enterococcus faecalis (29212)	-	+++	yellow colonies
Staphylococcus aureus (25923)	-	+++	yellow colonies

Key : Growth**: Growth with addition of Polymyxin B Selective Supplement
Growth*: without addition of Polymyxin B Selective Supplement

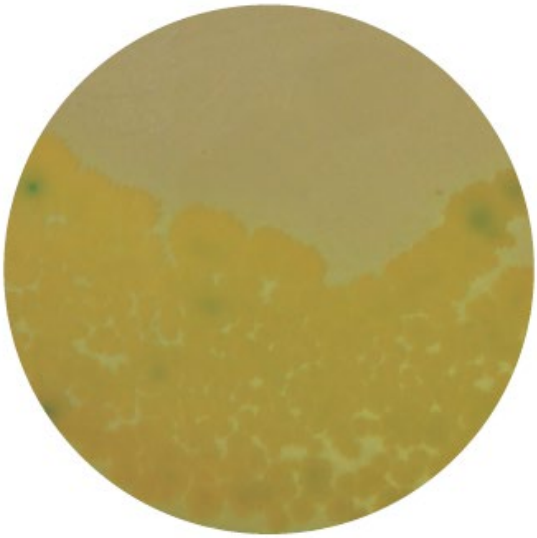




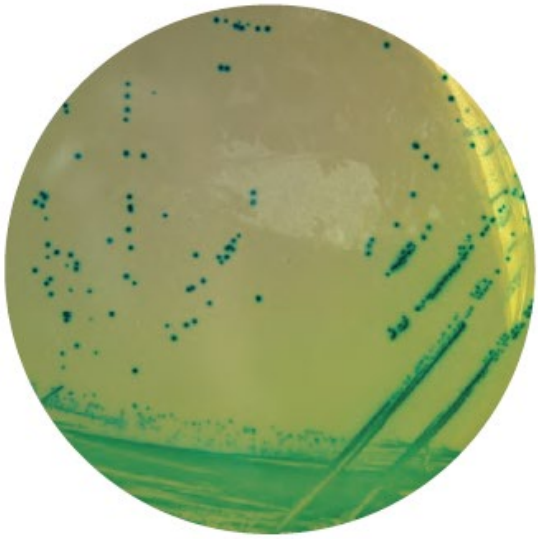
Bacillus cereus (10876)



Bacillus thuringiensis (10792)



Bacillus megaterium (14581)



Bacillus pumilis (14884)

References:

1. P.R. Mortimer, G. McCann, Lancet, 1043 (1974)
2. E. Bouza, S. Grant, C. Jordan, et. al, Arch. Ophthamol., 97, 488 (1979)
3. K. Wohlgemuth, C.A. Kirkbride, E.J. Bicknell, R.P. Ellis, Am. Vet. Met, Ass., 161, 1691 (1972)

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.