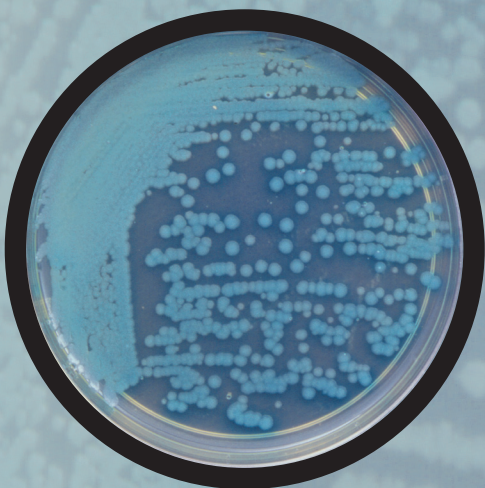


R & F[®] *Bacillus cereus*/*Bacillus thuringiensis* Chromogenic Plating Medium

A Highly Selective/Differential Plating Medium For Identifying

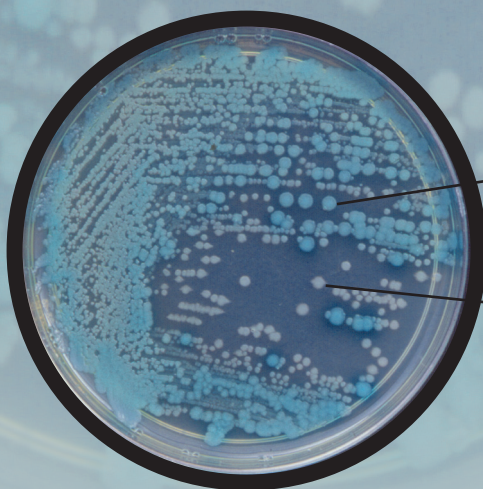
Bacillus cereus and *Bacillus thuringiensis*



Bacillus cereus at 35°C for 24 hours



Bacillus thuringiensis at 35°C for 24 hours



Bacillus cereus

Bacillus circulans

35°C for 24 hours

Selective/Differential properties of R & F® *Bacillus cereus*/*Bacillus thuringiensis* Chromogenic Plating Medium incubated at 35°C for 24 hours

Bacteria	Number of Strains	Colonial Morphology
<i>Bacillus cereus</i>	20	Turquoise flat dull colonies; 2-7 mm ± halos
<i>Bacillus thuringiensis</i>	4	Turquoise flat dull colonies; 2-8 mm + halos
<i>Bacillus circulans</i>	1	White dull domed colonies; 1-2 mm
<i>Bacillus megaterium</i>	3	No growth
<i>Bacillus licheniformis</i>	3	No growth
<i>Bacillus subtilis</i>	3	No growth
<i>Bacillus brevis</i> , <i>Bacillus lentus</i> , <i>Bacillus pumilis</i> , <i>Bacillus sphaericus</i> , <i>Bacillus mycoides</i> , <i>Bacillus insolitus</i> , <i>Paenibacillus macerans</i> , <i>Paenibacillus polymyxa</i> ,	1 each	No growth
<i>Listeria monocytogenes</i>	20	Turquoise domed glossy colonies; pinpoint to < 1 mm ± halos
<i>Listeria ivanovii</i>	3	Turquoise domed glossy colonies; pinpoint to < 1 mm
<i>Listeria innocua</i> <i>Listeria seeligeri</i> <i>Listeria welshimeri</i>	2 each	White domed colonies; pinpoint to < 1 mm
<i>Enterococcus faecium</i>	4	No growth or white domed colonies < 1 mm
<i>Enterococcus faecalis</i>	5	No growth
<i>Enterococcus avium</i>	3	No growth
<i>Staphylococcus aureus</i>	19	No growth (15 strains) or white domed colonies < 1 mm
<i>Streptococcus bovis</i>	1	No growth
<i>Streptococcus lactis</i>	1	No growth
<i>Citrobacter freundii</i> , <i>Enterobacter aerogenes</i> , <i>Edwardsiella tarda</i> , <i>Enterobacter agglomerans</i> , <i>Escherichia coli</i> , <i>E. coli</i> O157:H7, <i>Klebsiella pneumoniae</i> , <i>Proteus mirabilis</i> , <i>Pseudomonas aeruginosa</i> , <i>Salmonella derby</i> , <i>Salmonella enteritidis</i> , <i>Shigella flexneri</i> , <i>Shigella sonnei</i> , <i>Yersinia enterocolitica</i>	1 each	No growth

Advantages of R & F® *Bacillus cereus*/*Bacillus thuringiensis* Chromogenic Plating Medium

- The highly differential system identifies only *Bacillus cereus*/*Bacillus thuringiensis* - other *Bacillus* species either form white colonies or do not grow
- Chromogenic reactions identify a specific enzyme activity (phosphatidylinositol specific phospho-lipase C) one of the virulence factors present in *Bacillus cereus* and *Bacillus thuringiensis*
- Unlike selective/differential agars that depend on egg-yolk supplementation (Mannitol Egg Yolk Polymyxin agar), the chromogenic substrate in this system eliminates the need for such supplementation
- In contrast to the lecithinase reaction where colony coalescing can adversely affect enumeration of *Bacillus cereus*, the water insoluble chromogen colors only the colonies
- Prepared plates have a shelf-life of 60 days when stored in the dark at 2-8°C

References:

Peng, H., V. Ford, E.W. Frampton, L. Restaino, L.A. Shelef, and H. Spitz. 2001. Isolation and enumeration of *Bacillus cereus* from foods on a novel chromogenic plating medium. *Food Microbiol.* 18, 231-238.

Ordering Information:

M-0400 R & F® *Bacillus cereus*/*Bacillus thuringiensis* Chromogenic Plating Medium Powder

M-0410 R & F® *Bacillus cereus*/*Bacillus thuringiensis* Supplement for Plating Medium

M-0450 R & F® *Bacillus cereus*/*Bacillus thuringiensis* Chromogenic Detection System

M-0460 R & F® *Bacillus cereus*/*Bacillus thuringiensis* Chromogenic Prepared Plates

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