

CAMPYLOBACTER JEJUNI/C. COLI CHROMOGENIC DETECTION SYSTEM

A Selective/Differential Chromogenic Plating Medium For
Identifying *Campylobacter jejuni*/C. coli



*Product contains BIOSYNTH AG
patented substrate
(PCT/EP2010/056212)*

Presumptively positive colonies of *Campylobacter jejuni*/C. coli
appear as dark salmon flat to convex colonies, 1.0-2.0 mm in
diameter with and without a clear ring after 48 hours at 41-42
degrees C under microaerophilic conditions

CAMPYLOBACTER JEJUNI/C. COLI CHROMOGENIC DETECTION SYSTEM

incubated under microaerophilic conditions at 41-42C for 48 h...

Bacteria	Number of Strains	Colonial Morphology
<i>Campylobacter jejuni</i>	54	Flat to convex, dark salmon colonies; 1.0 to 2.0 mm in diameter with and without a clear ring and no swarming
<i>Campylobacter coli</i>	38	Flat to convex, dark salmon colonies; 1.0 to 2.0 mm in diameter with and without a clear ring and no swarming
<i>Campylobacter lari</i>	5	Flat to convex, beige to off white colonies; 1.0 to 2.0 mm in diameter with a clear ring and no swarming
<i>Acinetobacter calcoaceticus</i>	1	Convex, salmon colonies; <0.5 to 2.0 mm in diameter
<i>Acinetobacter baumannii</i>	1	Scant growth; convex, salmon colonies; <0.5 to 1.5 mm in diameter
<i>Pseudomonas</i> sp.	1	Flat, off white colonies; 2.0 mm in diameter
<i>Enterobacter aerogenes</i>	1	Scant growth; flat, white colonies; <1.0 mm in diameter
Generic <i>Escherichia coli</i>	1	Scant growth; flat, white colonies; <1.0 mm in diameter
<i>Enterococcus faecalis</i>	1	Scant growth; pinpoint white colonies; <1.0 mm in diameter
<i>Candida albicans</i>	1	Convex, white colonies; 1.0 mm in diameter
Gram negatives & yeasts: <i>Acinetobacter johnsonii</i> , <i>Acinetobacter grimontii</i> , <i>Acinetobacter</i> sp., <i>Aeromonas hydrophila</i> , <i>Alcaligenes</i> sp., <i>Candida paludigena</i> , <i>Citrobacter freundii</i> (2), <i>Escherichia vulneris</i> , <i>Edwardsiella tarda</i> , <i>Enterobacter</i> sp. (4), <i>Escherichia coli</i> (3), <i>Escherichia coli</i> O157:H7 (2), <i>Flavobacterium</i> sp. (3), <i>Hafnia alvei</i> (2), <i>Klebsiella pneumonia</i> (2), <i>Kluyvera ascorbata</i> , <i>Moraxella</i> sp. (4), <i>Morganella morganii</i> (2), <i>Ochrobactrum anthropi</i> , <i>Pantoea agglomerans</i> , <i>Proteus mirabilis</i> , <i>Providencia alcalifaciens</i> , <i>Pseudomonas</i> sp. (9), <i>Rhodococcus rhodochrous</i> , <i>Saccharomyces cerevisiae</i> , <i>Salmonella</i> sp. (7), <i>Serratia</i> sp. (4), <i>Shewanella putrefaciens</i> , <i>Shigella</i> sp. (2), <i>Stenotrophomonas maltophilia</i> , <i>Vibrio parahaemolyticus</i> , <i>Yersinia enterocolitica</i>	65	No Growth
Gram positives: <i>Actinomyces viscosus</i> , <i>Bacillus</i> sp. (3), <i>Carnobacterium mobile</i> , <i>Corynebacterium matruchotii</i> , <i>Enterococcus faecalis</i> , <i>Lactobacillus</i> sp. (2), <i>Leuconostoc mesenteroides</i> , <i>Listeria</i> sp. (3), <i>Micrococcus luteus</i> , <i>Paenibacillus macerans</i> , <i>Salinicoccus hispanicus</i> , <i>Staphylococcus aureus</i> (2) and <i>Streptococcus</i> sp.	19	No Growth

* 156 microbial strains tested by University of Guelph

CAMPYLOBACTER JEJUNI/C. COLI CHROMOGENIC DETECTION SYSTEM

key advantages...

- Novel chromogenic plating medium for isolating Campylobacter jejuni and Campylobacter coli
- Uses a unique chromogenic substrate that can produce a water insoluble chromogen (color remains within the colony) under microaerophilic conditions
- Detection of the C-2 esterase enzyme produced by Campylobacter jejuni and Campylobacter coli but not Campylobacter lari
- Selectivity of medium and incubation conditions inhibits the growth of most Enterics and other closely related Gram negative bacteria
- University of Guelph studies showed 98% exclusivity and 100% inclusivity (156 microbial strains tested) • Plates may be examined after 24h for C.jejuni/C.coli

• *References...*

- 1. Restaino, Lawrence. 2012. A novel chromogenic plating medium for the isolation of Campylobacter jejuni and Campylobacter coli. Poster No. 0101-000046, International Poultry Expo/International Feed Expo 2012.
- 2. Wang, Q. et al. FDA Campylobacter jejuni and coli Detection Method from Raw Silo Milk. Poster IAFP 2012.