BRILLIANT GREEN AGAR MODIFIED

INTENDED USE
Remel Brilliant Green Agar Modified is recommended for use in qualitative procedures for selective and differential isolation of *Salmonella* species other than *Salmonella enterica* serovars Typhi and Paratyphi from foods, eggs, meat products, or other materials.

SUMMARY AND EXPLANATION
Brilliant Green Agar was developed by Kristensen et al. for isolation of salmonellae (except *S. typhi*).[1] The medium was modified to improve selectivity by increasing the dye concentration.[2,3] Brilliant Green Agar Modified is suitable for subcultures from selective enrichment broth; however, because it is highly selective, small numbers of *Salmonella* may be missed. It is not recommended for isolation of *Salmonella enterica* serovar Typhi and *Shigella*. Brilliant Green Agar Modified is recommended by the American Public Health Association (APHA) for selective isolation of salmonellae from food products.[4]

PRINCIPLE
Casein and meat peptones provide nitrogen, amino acids, and peptides necessary for bacterial growth. Yeast extract is a source of B-complex vitamins. Beef extract provides nutritious compounds including carbohydrates, vitamins, and nitrogen. Lactose and sucrose serve as energy sources. Disodium phosphate and monosodium phosphate are buffers. Brilliant green dye is a selective agent which inhibits gram-positive bacteria and most gram-negative bacilli. Phenol red is an indicator and agar is a solidifying agent. *Salmonella* colonies range from reddish or pink to nearly white in color with a red zone.

REAGENTS (CLASSICAL FORMULA)*

Lactose	10.0 g	Disodium Phosphate	1.0 g
Peptone	10.0 g	Monosodium Phosphate	0.6 g
Sucrose	10.0 g	Phenol Red	0.09 g
Beef Extract	5.0 g	Brilliant Green	0.0047 g
Yeast Extract	3.0 g	Agar	12.0 g
		Demineralized Water	1000.0 ml

pH 6.9 ± 0.2 @ 25°C

*Adjusted as required to meet performance standards.

PRECAUTIONS
This product is For Laboratory Use only. It is not intended for use in the diagnosis of disease or other conditions.

PREPARATION OF DEHYDRATED CULTURE MEDIUM
1. Suspend 52 g of medium in 1000 ml of demineralized water.
2. Heat to boiling with agitation to completely dissolve. **Do not autoclave.**
3. Dispense into appropriate containers.

PROCEDURE
1. Consult current editions of appropriate references for the recommended procedure for sample preparation, inoculation, and testing.[4]

QUALITY CONTROL
Each lot number of the Brilliant Green Agar Modified has been manufactured, packaged, and processed in accordance with current Good Manufacturing Practice regulations. All lot numbers have been tested using the following quality control organisms and have been found to be acceptable. Testing of control organisms should be performed in accordance with established laboratory quality control procedures. If aberrant quality control results are noted, sample results should not be reported.

CONTROL	INCUBATION	RESULTS
Salmonella enterica serovar Typhimurium ATCC® 14028	Ambient, 18-24 h @ 33-37°C	Growth with red zone
Enterococcus faecalis ATCC® 29212	Ambient, 18-24 h @ 33-37°C	Inhibition (partial to complete)
Escherichia coli ATCC® 25922	Ambient, 18-24 h @ 33-37°C	Inhibition (partial to complete)

LIMITATIONS
1. Studies have shown slow lactose-fermenters such as *Proteus, Citrobacter,* and *Pseudomonas* may grow on this medium and produce colonies similar in appearance to *Salmonella*.[5]

BIBLIOGRAPHY

1. Kristensen, M., V. Lester, and A. Jurgens. 1925. British J. Exp. Path. 6:291-299.
2. Edel, W. and E.H. Kampelmacher. 1968. Bull. WHO, 39: 487-491.
3. Edel, W. and E.H. Kamplemacher. 1969. Bull. WHO, 41:297-306.
4. Downes, F.P. and K. Ito. 2001. Compendium of Methods for the Microbiological Examination of Foods. 4th ed. APHA, Washington, D.C.
5. MacFaddin, J.F. 1985. Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria. Vol. 1. Williams & Wilkins, Baltimore, MD

Refer to the front of Remel *Technical Manual of Microbiological Media* for **General Information** regarding precautions, product storage and deterioration, sample collection, storage and transportation, materials required, quality control, and limitations.

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IFU 452562, Revised March 6, 2012

Printed in U.S.A.

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