



## BD Dorset Egg Medium, Modified

### INTENDED USE

**BD Dorset Egg Medium, Modified** is a prepared tubed, slanted, coagulated egg medium used for cultivation, maintenance and transport of pure cultures of mycobacteria and other fastidious and nonfastidious organisms.

### PRINCIPLES AND EXPLANATION OF THE PROCEDURE

Microbiological method.

**BD Dorset Egg Medium, Modified** is a modification of the whole egg medium described by Dorset.<sup>1</sup> It is a nonselective medium well suited for the growth and maintenance of pure cultures of mycobacteria.<sup>2</sup> More recently, it has also been used for the maintenance and transport of other bacterial species, such as *Streptococcus pneumoniae*, *Neisseria meningitidis*, *Haemophilus influenzae*, and enterotoxigenic *E. coli* at ambient temperature.<sup>3-5</sup>

Beef extract and peptone provide nutrients such as amino acids and organic phosphates.

Whole egg mass contains complex nutrients necessary for bacterial and mycobacterial growth and, additionally, neutralizes toxic compounds. The inspissation process during the preparation of the medium provides the necessary solidity of the medium and inactivates bactericidal compounds contained in eggs such as lysozyme.

### REAGENTS

#### **BD Dorset Egg Medium, Modified**

Formula\* Per Liter Purified Water

Beef Extract	3.0
Peptone	5.0
Egg Mass (from whole fresh eggs)	750 ml

pH 7.2 +/- 0.3

\*Adjusted and/or supplemented as required to meet performance criteria.

### PRECAUTIONS

**IVD** . For professional use only.

Do not use containers if they show evidence of microbial contamination, discoloration, drying, cracking or other signs of deterioration.

Laboratory procedures involving *Mycobacterium tuberculosis* require special equipment and techniques to minimize biohazards.<sup>6-9</sup> Biosafety Level 3 is required for handling of specimens and cultures. Observe local safety guidelines for shipping bacterial cultures.

Consult **GENERAL INSTRUCTIONS FOR USE** document for aseptic handling procedures, biohazards, and disposal of used product.

### STORAGE AND SHELF LIFE

On receipt, store vials in the dark at 2 to 8° C until just prior to use. Avoid freezing and overheating. The vials may be inoculated up to the expiration date (see container or package label) and incubated for the recommended incubation times.

Vials from opened packages can be used up to the expiration date. Opened vials must be used immediately.

### USER QUALITY CONTROL

Inoculate samples of this medium with the strains mentioned below. Use an inoculum of 10<sup>2</sup> to 10<sup>3</sup> per vial. Incubate for up to 2 weeks for the mycobacteria and 24 to 48 hours for the other organisms at 36 +/- 1° C.

<i>Mycobacterium fortuitum</i> DSM 46621	Good to excellent growth
<i>Mycobacterium smegmatis</i> DSM 43061	Good to excellent growth
<i>Staphylococcus aureus</i> ATCC™ 25923	Good to excellent growth
<i>Escherichia coli</i> ATCC 25922	Good to excellent growth
Uninoculated	Cream to white, opaque

## PROCEDURE

### Materials Provided

**BD Dorset Egg Medium, Modified.** Microbiologically controlled.

### Materials Not Provided

Ancillary culture media, reagents and laboratory equipment as required.

### Specimen Types

**BD Dorset Egg Medium, Modified** is not intended to be used directly with clinical specimens. It is a growth, maintenance and transport medium for pure cultures of mycobacteria and other fastidious and nonfastidious microorganisms.

### Test Procedure

Inoculate the culture with a loop onto the whole area of the slanted medium. Incubate appropriately (e.g., overnight for fast growing bacteria and up to 3 weeks for slow-growing mycobacteria) at 35 to 37° C with caps slightly loosened.

### Results

Growth will be apparent in the streaked areas of the slant. Growth from the inoculated tubes is processed further depending on the organisms. Close tightly after incubation. The tubes may now be shipped to the laboratory for further testing. When used for the maintenance of pure cultures, store the incubated tubes at room temperature (18 - 23° C) in the dark. For reactivation of stored cultures on this medium, it is recommended to inoculate a loopful of growth from the bottom of the slanted surface onto optimal plated media and incubate as required for the organisms. For slow-growing mycobacteria, an incubation time of 3 to more than 6 weeks may be necessary.

## PERFORMANCE CHARACTERISTICS AND LIMITATIONS OF THE PROCEDURE

**BD Dorset Egg Medium, Modified** is used for the cultivation of mycobacteria and a variety of other bacteria that are difficult to maintain on other media, including transport media.<sup>2,3-5</sup>

When used as a transport medium, extreme temperatures during transport must be avoided. It has been shown that room temperature (18 to 23° C) is optimal for the survival.<sup>3-5</sup> On Dorset Egg Medium, *Neisseria meningitidis* and *Haemophilus influenzae* can survive for at least 3 weeks at room temperature.<sup>5</sup> *Streptococcus pneumoniae* was shown to survive for more than 6 weeks at room temperature.<sup>3</sup>

This medium is not selective and, therefore, does not inhibit the growth of contaminants. The transport of mixed cultures on **BD Dorset Egg Medium, Modified** is not recommended since the species present in mixed cultures might interfere with each other causing either supplementation or inhibition. However, it is an excellent medium for transport of pure cultures to reference laboratories and for the maintenance of strains.<sup>2,3-5</sup>

Nutritional and growth properties of microorganisms vary. Use of this medium for organisms other than those described here should first be validated.

## REFERENCES

1. Dorset, M. 1902. The use of eggs as a medium for the cultivation of *Bacillus tuberculosis*. Am. Med. 3: 555-556.
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### **PACKAGING/AVAILABILITY**

**BD Dorset Egg Medium:** Ready-to-use medium in vials

Cat. No. 257165                      cpu 50                      Slants (4.5 ml) in 15 ml screw-cap vials

### **FURTHER INFORMATION**

For further information please contact your local BD representative.



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