MAST ID™
LYSOSTAPHIN DISCS

For the differentiation of staphylococci and micrococci

Introduction

Lysostaphin is a mixture of extracellular enzymes produced by the organism Staphylococcus staphyloxyticus. The major constituent of lysostaphin is endopeptidase, an enzyme that cleaves the glycyglycine peptide linkages that are found in the cell walls of staphylococci. Due to the absence of these specific peptide linkages in micrococci, these organisms are resistant to lysis by lysostaphin and differentiation of micrococci and staphylococci is therefore possible. The lysostaphin test may be used in conjunction with the MASTASTAPH™ latex agglutination test kit as follows:

Differentiation Scheme

Catalase Test

- +

Streptococci MASTASTAPH™

- +

Lysostaphin Staph. aureus

- (resistant) + (sensitive)

micrococi staphylococci

Description

MAST ID™ Lysostaphin (D48) Discs are filter paper discs impregnated with 20µg lysostaphin per disc. Discs are printed with the code LYS on both sides for easy identification.

Directions

1. Dispense 2ml phosphate-buffered saline (PBS), pH7.4 into a small test tube or bijou container.

   2. Using a sterile loop, pick up colonies of the test organism and emulsify them in the PBS to give an even, turbid suspension. (McFarland 1).

   3. Transfer 1ml of the bacterial suspension to a second test tube or bijou.

   4. Add one lysostaphin disc to one of the bacterial suspensions and shake vigorously. Use the second suspension as a control.

   5. Incubate both suspensions at 37°C for 2 hours in a waterbath or for 2½ hours at 37°C in an incubator.

   6. After incubation, compare the turbidity of the bacterial suspension with lysostaphin against the control bacterial suspension.

In Use

Positive Result - Complete clearing of the bacterial suspension incubated with the lysostaphin disc or marked decrease in its turbidity compared with the control suspension which should remain fully turbid.

Negative Result - Identical turbidity of both bacterial suspensions.

Storage

Store at 2-8°C in the containers provides. Allow to equilibrate to room temperature before opening.

Packaging and Ordering Details

MAST ID™ Lysostaphin Discs are provided in vials of 50 discs - Order code D48.

References