**MAST ID™ AESCULIN STRIPS**

A strip test for the detection of aesculin hydrolysis

**Introduction**

The aesculin test is based on early work by Rochaix and Meyer and Schonfield who noticed that enterococci (Group D streptococci) could hydrolyse aesculin while other streptococci could not.

This reaction can be used as a taxonomic tool in the identification of the following groups of bacteria:

1. Differentiation of Group D streptococci (positive) from other streptococci (negative).
2. Identification of *Listeria* species (positive).
3. Differentiation within the *Enterobacteriaceae* group primarily *Klebsiella*.
4. Differentiation of *Bacteroides fragilis* group (positive) from other *Bacteroides* species (negative).
5. Differentiation of anaerobic bacteria eg. *Clostridium*, *Eubacterium*, *Fusobacterium* species.

**Directions**

1. Remove a paper strip from the container and briefly, using forceps, fully immerse in deionised or distilled water, drain off excess liquid and place the strip onto a flat surface eg. Petri dish. The paper should be moist but not saturated.
2. Remove 4-5 large colonies from the test culture using a wooden applicator stick. If colonies are small, use several well isolated colonies for testing. Freshly incubated, 24-48 hours, prepared culture plates should always be used.
3. Gently rub the colonies onto the test area of the strip.
4. Similarly apply a sample from a known positive and a known negative culture to appropriate areas of the strip as controls.
5. Place the strip and petri dish into a moist chamber eg. a resealable plastic bag with a piece of dampened paper towel inside and incubate at 37°C.

**In Use**

If the organism is positive a black colour will develop within the allocated time (see below). If the organism is negative the strip will remain a pale green colour.

Group D streptococci and *Listeria* species isolated from blood agar plates should give a result within 30 minutes. Most strains appear positive within 10-20 minutes.

Organisms isolated from primary selective media may take up to 1 hour or more to give a positive result.

It is notable that a few strains of *Streptococcus salivarius* are aesculin positive as reported by Phua & Douglass.
MAST ID™ AESCULIN Strips can be used in conjunction with the MASTASTREP™ Latex Agglutination kit for differentiation of streptococci.

**Packaging & Ordering Details**

MAST ID™ AESCULIN Strips are presented as packs of 25 impregnated filter paper strips.


**Storage**

Store at 2-8°C sealed in the aluminium tin provided. Allow to equilibrate to room temperature before opening.

Do not use past the expiry date given on the label.

The strips are light sensitive and should be stored at all times in the dark.

**References**

1. Rochaix A. Millieux a lecture pour le diagnostica differential des bacteries du groups strepto - entero - pneumocoque *Comt Rend Soc Biol.* 1924; 90:771-772


