

## DNA Analyst Training Laboratory Training Manual

Protocol 2.10  
Saliva Stain Indication:  
Amylase Mapping



This laboratory protocol (or part thereof) has been provided as an example of a laboratory SOP, courtesy of the Illinois State Police. It has been included for training and example purposes only.

PRESIDENT'S  
**DNA**  
INITIATIVE



## INTRODUCTION

This test is utilized to locate saliva stains on an item of evidence.

## SAFETY CONSIDERATIONS

STD Laboratory Safety Practices.

## PREPARATIONS

Use one Phadebas tablet (Magle Life Sciences, MA) per 5ml of  $DH_2O$ . Ten tablets/50ml  $DH_2O$  for a piece of 46x57cm Whatman #1 filter paper works well. Crush tablets using mortar and pestle. Since the Phadebas mixture is actually a suspension, it must be kept mixed during spraying to evenly distribute the phadebas particles. Hang or lay flat in a fume hood pieces of filter paper to be sprayed.

Use gloves and mask to prepare papers. Mix the phadebas tablets with water and put in a sprayer. (We have found that the Sigma Sprayer (S3257) delivers a fine, even mist). Spray the mist evenly onto the paper. Avoid spraying too heavy so that it does not run down the paper. Approximately 10ml per 900 square cm. gives a suitable covering. The paper can be used immediately or can be used dry. Papers can be made up ahead of time and stored in a dark dry place.

## INSTRUMENTATION

No Instrumentation Required.

## MINIMUM STANDARDS & CONTROLS

A known saliva stain should be pressed along with item. If wanting to spray with acid phosphatase mapping reagents, a known semen stain should also be pressed along with item.

## PROCEDURE OR ANALYSIS

The paper is then laid spotty side down on the item under examination and its position marked.

Note: If the paper is used right away, there is no need to rewet the paper. If paper is dry, respray the paper with distilled water until it is damp. (A Sigma Sprayer works well.) Caution: When rewetting, if paper is sprayed too much or too hard the blue particles will puddle.

A piece of plastic sheeting is laid over the filter paper and a sheet of glass, or flat board, is put on top for pressing. This insures good contact. Press for 40-60 minutes at room temperature. (Thirty minutes at 37°C.)

After incubation, the paper is removed and dried. Positive areas appear as pale blue zones in place of the mottled blue negative areas. Slight shrinkage of the filter paper may occur during drying.

NOTE: The paper (while still damp) can be sprayed with acid phosphatase mapping reagents to search for semen stains.

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