

DNA Analyst Training Laboratory Training Manual

Protocol 2.12 Urine Stain Indication: Creatinine Test



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 involves the identification of creatinine a component of urine. This test is **NOT** a confirmatory test for urine.

SAFETY CONSIDERATIONS

Picric Acid Solution -Warning! Severe Irritant!
Danger! Explosive!
(purchase saturated solution - do not buy dry product)

Sodium Hydroxide - Danger! Corrosive!

PREPARATIONS

1. Saturated aqueous picric acid solution (1 g. in 30 ml. H₂O)

It is best to purchase this as a pre-made solution due to the explosive nature of dry picric acid.

2. 5% Sodium hydroxide

INSTRUMENTATION

No Instrumentation Required.

MINIMUM STANDARDS & CONTROLS

A known urine stain, substrate sample (when available), and negative control should be run.

PROCEDURE OR ANALYSIS

1. Cut small sections of the suspected stain and an unstained control area and place on filter paper.
2. To each, add 1 drop of saturated picric acid solution followed by 1 drop of 5% NaOH.
3. An orange coloration after 15 minutes on the questioned stain and surrounding filter paper is due to creatinine picrate and is considered a positive result. The control area should remain yellow. This test is not confirmatory for urine.
4. Addition of 2 drops of glacial acetic acid should render the orange questioned stain yellow.

Reaction:



[Return to Laboratory Training Manual User Guide](#)