

SER: Blood (Presumptive) - Hemastix

Principle	<p>Hemastix is a commercial product sold to medical laboratories for the detection of occult blood in urine.</p> <p>Each plastic strip contains a reagent pad at one end. The reagent is 3,3',5,5',tetramethylbenzidine (TMB) and di-isopropylbenzene dihydroperoxide. This reagent turns green in the presence of blood.</p>
Safety	<p>The reagent pad contains a substituted benzidine and should be handled with gloves.</p>
Supplies	<p>This procedure uses the following laboratory supplies:</p> <ul style="list-style-type: none">• dropper bottle with deionized or purified water• sterile swabs• Hemastix reagent stick
Quality control	<p>The Hemastix reagent stick must be quality control tested each day before use in casework and when a new reagent bottle is opened using</p> <ul style="list-style-type: none">• a positive control (blood diluted in water 1:1000 and allowed to dry), and• a negative control (water) <p>The results of these tests are recorded in the examination documentation.</p>
Procedure	<p>The following procedures can be used to test stains using Hemastix strips.</p> <ul style="list-style-type: none">• Add a small aliquot of the stain extract directly to the dry reagent pad.• Rub the stain with a swab moistened with deionized water, then touch the reagent pad to the swab.

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SER: Blood (Presumptive) - Hemastix, Continued

Interpretation The rapid appearance of a green color is a positive (+) result and an indication of the presence of blood.

The absence of the green color reaction is a negative (-) result for the presence of blood.

This test is very sensitive but not specific. False positives can be caused by the following:

- substances other than heme which possess a similar peroxidase activity
 - chemical oxidants
 - materials containing peroxidase itself
 - some metals
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