

Document Title: Takayama Reagent QC
Controlled: Yes, with red stamp present
Controlled By: Quality Manager

Prepared By: _____ Date: _____

Approved By: _____ Date: _____

A. PURPOSE:

To prepare the reagent for the confirmatory crystal test for blood and to perform quality control on the prepared reagent.

B. RESPONSIBILITY:

Forensic Science Examiner 1 and 2 in the Forensic Biology Section. Ordering information is maintained in a log book in the Forensic Biology Section.

C. SAFETY:

Use appropriate measures for the proper handling of pyridine and sodium hydroxide according to SOP-GL-2 (Safety Manual) and the Material Safety Data Sheets.

D. PROCEDURE:

1. 10 % Sodium Hydroxide Solution

a. Materials:

- aa. Sodium Hydroxide
- bb. Distilled water (dH₂O)

b. Procedure:

- aa. Make a 10% weight/volume solution with dH₂O.
- bb. Mix together until dissolved.
- cc. Discard excess sodium hydroxide solution after preparing Takayama reagent.

2. Glucose solution

a. Materials:

- aa. Glucose 5g
- bb. Distilled water 5ml

b. Procedure:

- aa. Mix together and heat until dissolved.
- bb. Discard excess glucose solution after preparing Takayama reagent.

D.3. Takayama Reagent

a. Materials:

- | | | |
|-----|-------------------------------|------|
| aa. | 10% Sodium hydroxide solution | 5ml |
| bb. | Pyridine | 5ml |
| cc. | Glucose solution | 5ml |
| dd. | Distilled water | 10ml |

b. Procedure:

- aa. Mix all materials together and place in a brown dropper bottle.
- bb. Test each new batch of reagent before use according to SOP-FB-08 (Confirmatory Test for Blood) and the Takayama Reagent Log Sheet. Record the required information.
- cc. If the appropriate results are not obtained, discard the reagent, review the procedure and make new reagent.
- dd. If the reagent is suitable for use, record the reagent, lot # (date of preparation), control date and examiner's initials on the bottle and store in the refrigerator.
- ee. Discard after one (1) year.

E. REFERENCES:

1. Takayama, M. " A Method for Identifying Blood by Hemachromogen Crystalization" Kokka Igakkai Zasshi 306 : 15-33 (issue); 463-481 (cumulative),(1912) 15.
2. Metropolitan Police Forensic Science Laboratory. Biology Methods Manual. 1978, pp. 2-90 to 2-91.
3. SOP-GL-2 (Safety Manual).
4. Material Safety Data Sheets.