

American MasterTech

scientific laboratory supplies

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CELESTINE BLUE STAIN KIT PROCEDURE

Item# CUKTCBL

(Revised 03/7/18)

KIT COMPONENTS INCLUDED: 100ml ZENKER'S FLUID W/MERCURIC CHLORIDE 100ml UNIVERSAL IODINE SOLUTION

100ml 5% SODIUM THIOSULFATE

100ml MODIFIED MAYER'S HEMATOXYLIN

100ml 1% ACID FUCHSIN SOLUTION

100ml 2% LIGHT GREEN SOLUTION

100ml UNIVERSAL IODINE SOLUTION 100ml CELESTINE BLUE SOLUTION 200ml ORANGE G – PICRIC ACID

100ml MACFARLANE'S STOCK SOLUTION

PRINCIPLE: This kit demonstrates fibrin, keratin and cytoplasmic granules.

SPECIMEN: 10% Formalin fixed paraffin embedded tissue cut at 4 to 5 microns.

QUALITY CONTROL: American MasterTech Scientific Recommended Control Slide: Alzheimer's, CSA0225P

MACFARLANE'S WORKING SOLUTION:

1. MACFARLANE'S STOCK SOLUTION 40 ml 2. 95% Reagent Alcohol 40 ml 3. Distilled water 20 ml

PROCEDURE:

- Deparaffinize slide using Xylene or a Xylene Substitute and hydrate through graded alcohols as usual.
- 2. Rinse slide in Distilled water.
- Place slide in ZENKER'S FLUID WITH MERCURIC CHLORIDE overnight.
- 4. Rinse slide thoroughly in running Tap water.
- Place slide in UNIVERSAL IODINE SOLUTION for 5 minutes.
- 6. Rinse slide in running Tap water.
- 7. Place slide in **5% SODIUM THIOSULFATE** for 2 minutes.
- 8. Rinse slide in running Tap water for 15 minutes.
- 9. Place slide in **CELESTINE BLUE SOLUTION** for 5 minutes.
- 10. Rinse slide in running Tap water for 4 minutes.
- 11. Place slide in **MODIFIED MAYER'S HEMATOXYLIN** for 5 minutes.
- 12. Rinse slide in running Tap water for 5 minutes.
- 13. Place slide in **ORANGE G PICRIC ACID SOLUTION** for 5 minutes.
- 14. Rinse slide in running Tap water for 1 minute.

RESULTS:

Fibrin and keratin: RED
Cytoplasmic granules: RED
Collagen: GREEN
Erythrocytes: ORANGE

DIFFERENTIATING SOLUTION:

1.	ORANGE G - PICRIC ACID SOLUTION	30	m
2.	80% Reagent Alcohol	70	m

- Place slide in 1% ACID FUCHSIN SOLUTION for 5 minutes.
- 16. Rinse slide in running Tap water for 1 minute.
- 17. Place slide in <u>Differentiating Solution</u> for 10 to 15 seconds.
- 18. Rinse slide in running Tap water for 1 minute.
- 19. Place side in <u>MacFarlane's Working Solution</u> for 5 minutes.
- 20. Rinse slide in running Tap water for 1 minute.
- Place slide in 2% LIGHT GREEN SOLUTION for 1 minute.
- 22. Rinse slide in running Tap water for 15 seconds.
- 23. Dehydrate slide through 3 changes of 95% Reagent Alcohol.
- 24. Dehydrate slide through 3 changes of fresh Absolute Alcohol.
- 25. Clear slide through 3 changes of fresh Xylene or Xylene Substitute.
- 26. Coverslip using a permanent mounting media.

REFERENCES: Lendrum AC, Fraser DS, Slidders W, Henderson R: J. Clin. Path. 15: 401–413, 1962; Luna LG: Histopathologic Methods and Color Atlas of Special Stain and Tissue Artifacts; American Histolabs, Inc.; 410 – 411, 1992