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## **G-454, ALDEHYDE-FUCHSIN METHOD**

**FIXATION:**

**Buffered Neutral Formalin, 10% (F-113) or Bouin's Fixative (F-40)** - avoid dichromate and mercury containing fixatives if possible to suppress the background staining.

**SECTIONS:** Paraffin, 3-5 microns

**STAINING:**

1. Deparaffinize and hydrate to distilled water.

**NOTE**

Place 50 ml Bouin's solution into a plastic coplin jar. Microwave for 30 seconds to bring the temperature to 60 °C Mordant the slides in the heated solution for 10 minute.

**Wash in running water to remove all picric acid, until the tissue is clear.**

2. Deep in **Lugol's Iodine Solution** to oxidize (G-454-1), (30minute.).
3. Remove iodine with **Sodium Thiosulfate, 5% Solution** (G-454-2).
4. Wash in running tap water for 5 minutes.
5. Rinse in distilled water.
6. Place slide in 70% alcohol for 3 minutes.
7. Stain in **Aldehyde-Fuchsin Solution** (G-454-3) for 2 hours. When sufficiently dark, remove excess stain with several changes of 95% alcohol (deep slide on 95% alcohol until is clean enough to see the stain tissue). . After staining and alcohol washes are complete, the slide can be exposed to aqueous solutions.
8. If desired, counterstain with nuclear stain. (Recommending for nice color contrast)
9. Dehydrate in absolute alcohol.
10. Clear and mount.

**STAIN RESULTS:**

|        |  |
|--------|--|
| Purple | Beta cell granules, elastic fibers,<br>mucus, and mast cell granules |
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|           |   |
|-----------|---|
| Colorless | Background or pale red if counterstain with nuclear fast red. |
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**REFERENCES:**

Clark, g.: Staining Procedures, Williams and Wilkins Company, Baltimore, 3<sup>rd</sup> ed., c. 1973, p.175.  
Gomori, G.: Aldehyde-Fuchsin: A New Stain For Elastic Tissue, Am. J. Clin.Path., 1950 20:665-6

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Note: Mordant in bouin's is necessary to increase the uptake of the stain by the tissue.

**COLOR:** Islet Purple. Back ground pale red with Nuclear fast red. I recommend that you counterstain in Nuclear fast red for 5 minutes.