

## Mallory-Heidenhain Azan-Gomori's Modification for Islet Cells

Catalog #26450

### Fixation

Bouin's or Helly's

### Section

Paraffin, 3-5 microns

### Staining

1. Deparaffinize and hydrate to distilled water as usual.
2. Wash in running water to remove all picric acid.
3. Stain in **Azocarmine G 0.1% 26450-01** 45-60 Min. Perform in a covered petri dish at 56°C. Rinse and blot dry carefully. (NOTE: Azocarmine G has been restricted in use as a carcinogen and not recommended, Azocarmine B may possibly be substituted depending upon material to be stained.)
4. Differentiate in the **Aniline-Alcohol, 1% 26450-02** according to fixation and species used. Check periodically under a microscope until the beta cells are stained either orangy red with human tissue or red with guinea pig tissue. The beta cells should appear red against the pinkish alpha cells with colorless parenchyma (acinar).
5. Rinse in distilled water.
6. Transfer to **Iron Alum Solution 26450-03** for 5 minutes or more- rinse in distilled water.
7. Stain in **Aniline Blue-Orange G 26450-04** for 2 to 20 minutes under microscopic control. Rinse briefly and blot carefully.
8. Differentiate in absolute alcohol and dehydrate completely. (NOTE: if the orange color fades too much in this step, restain the slide in **Orange G, 0.2% 26450-05** saturated alcohol, and rewash and rehydrate with clean absolute alcohol.)
9. Clear with xylene, two changes each.
10. Mount.

### Stain Results:

#### (Bouin Fixative)

|                  | <b>Human Tissue</b> | <b>Guinea Pig</b> |
|------------------|---------------------|-------------------|
| Alpha Granules:  | Red, Bright         | Orange - Tan      |
| Beta Granules:   | Orange-Brown, dull  | Red, Fiery        |
| D-Cell Granules: | Dark Blue           | Deep Blue         |

### References

Clark, G, ed.: Staining Procedures 3rd. ed.; Baltimore: Williams and Wilkins Co., c. 1973, p171.  
Gomori, G: "Studies on the cells of the Pancreatic Islets." Anat Rec. Rec. 74: 439 (1939).