

CHURUKIAN SCHENK METHOD FOR ARGYROPHIL GRANULES

PURPOSE:	For In Vitro Diagnostic Use: Intended for the qualitative demonstration of argyrophil granules.
PRINCIPLE:	Argyrophil cells are capable of absorbing silver but cannot reduce it on their own. Hydroquinone acts as the reducing agent. This procedure uses a low pH to better control staining.
CONTROL:	Pancreas <i>Control Slides can be purchased from Histology Control Systems. See inside back cover, Item# cs028.</i>
SPECIMEN PREPARATION:	Formalin fixed, paraffin embedded sections cut at 4-6 micrometers
SOLUTIONS:	1. Acidified Water pH 4.2 Item# s2023 2. Silver Nitrate 0.5% for Churukian Schenk Item# s2021 3. Nuclear Fast Red Kernechtrot 0.1% Item# s248 4. Components for Developer Solution (solution is stable for 2 weeks): Sodium Sulfite Powder..... 5 g Hydroquinone Powder..... 1 g Distilled Water..... 100 mL <i>Solutions can be purchased separately from Poly Scientific.</i>
NOTES:	
REFERENCE:	Churukian, Schenk. "A Modification of Pascual's Argyrophil Method." <i>J. Histotechnology</i> . 1979; 2: 102.

STAINING PROCEDURE:

1. Deparaffinize and hydrate to Acidified Water pH 4.2 for 1 minute.
2. Place in Silver Nitrate 0.5% for Churukian Schenk and place in 58°C water bath for 2 hours.
3. Rinse in 3 changes of distilled water.
4. Transfer to Developer Solution, preheated to 58°C in a water bath, for 5 minutes.
5. Rinse in 3 changes of distilled water.
6. Place in the same Silver Nitrate 0.5% for Churukian Schenk in the 58°C water bath for 10 minutes.
7. Rinse in 3 changes of distilled water.
8. Place in the same Developer Solution in the 58°C water bath for 5 minutes.
9. Rinse in 3 changes of distilled water.
10. Rinse in distilled water.
11. Dehydrate in 95% Alcohol, Absolute Alcohol and clear in Xylene.
12. Counterstain with Nuclear Fast Red Kernechtrot 0.1% for 3 minutes.
13. Mount with Poly Mount (Item# s2153) or any other acceptable mounting medium.

RESULTS:

Argyrophil Cells of Gastrointestinal Mucosa, Cells of Pancreatic Islet.....Dark Brown to Black
Nuclei.....Red
BackgroundPale Yellow

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