

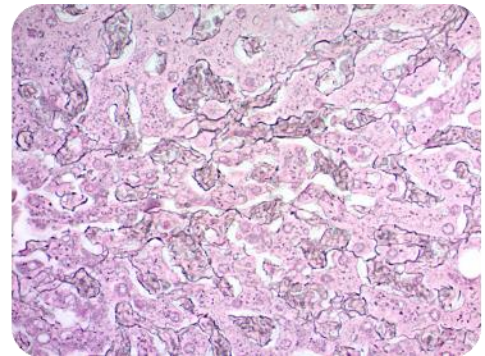
P.O. Box 3286 - Logan, Utah 84323, U.S.A. - Tel. (800) 729-8350 - Fax (435) 755-0015 - [www.scytek.com](http://www.scytek.com)

# Reticulum Stain Kit

## (Modified Gomori's)

**Description:** The Reticulum Stain Kit (Modified Gomori's) is intended for use in histological demonstration of reticular fibers. The main function of reticular fibers is to provide support. They are normally found throughout the body, particularly in liver, lymph node, spleen and kidney. Ammoniacal silver stains are the most commonly used methods for demonstration of reticular fibers.

Reticulum: Black  
Nuclei: Red



**Uses/Limitations:** For In-Vitro Diagnostic use only.  
Histological applications.  
Do not use past expiration date.  
Use caution when handling these reagents.


**Control Tissue:** Liver  
Kidney  
Lymph Node  
Spleen

**Availability/Contents:**


<u>Item #</u>	<u>Kit Contents</u>	<u>Volume</u>	<u>Storage</u>
PPD250	Potassium Permanganate Solution	250 ml	18-25° C.
SAQ015	Sulfuric Acid Solution (1N)	15 ml	18-25° C.
PMS125	Potassium Metabisulfite Solution (3%)	125 ml	18-25° C.
FAS125	Ferric Ammonium Sulfate Solution	125 ml	18-25° C.
SNX065	Silver Nitrate Solution (10%)	65 ml	2-8° C.
PHC015	Potassium Hydroxide Solution (10%)	15 ml	18-25° C.
FRL125	Formalin Solution (20%)	125 ml	18-25° C.
GCB125	Gold Chloride Solution (0.2%)	125 ml	2-8° C.
STB125	Sodium Thiosulfate Solution (5%)	125 ml	18-25° C.
NFS125	Nuclear Fast Red Solution	125 ml	18-25° C.

**Required but not included:**

Ammonium Hydroxide Solution, Concentrated (25-30%)  
Graded Alcohols  
Xylene

Storage: 2° C  25° C

**Mixed Storage Conditions.**  
**Separate Contents.**



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**CE** IVD

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Instructions For Use  
**GRS-1-IFU**

Rev. Date: April 12, 2020

Revision: 3

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**Precautions:** Keep away from open flame.  
Avoid contact with skin and eyes.  
Harmful if swallowed.  
Follow all Federal, State, and local regulations regarding disposal.  
Use in chemical fume hood whenever possible.  
Wear protective clothing.

**Preparation of Reagents Prior to Beginning:**




1. Prepare working Potassium Permanganate Solution by mixing 2.5ml of Sulfuric Acid Solution (SAQ015) with 47.5ml of Potassium Permanganate Solution (PPD250). Mixed solution is stable for 2 days.
2. Prepare working Ammoniacal Silver Solution using chemically cleaned glassware in a chemical fume hood as follows:  
Mix 2.5ml of Potassium Hydroxide Solution (PHC015) with 10ml of Silver Nitrate (10%) Solution (SNX065). Add concentrated ammonium hydroxide (25-30%); drop by drop, while swirling the flask continuously, until precipitate just dissolves. A few potassium hydroxide crystals will remain. Carefully add Silver Nitrate Solution (10%), drop by drop, until one drop causes the solution to become cloudy. Measure the resulting volume, dilute with an equal volume of distilled water. Filter into chemically cleaned coplin jar with any standard laboratory filter.

**If filtering is not preferred or possible**, continue adding ammonium hydroxide drop by drop to working solution while mixing until solution is completely clear and precipitate is completely dissolved. Excess ammonium hydroxide added beyond this point may reduce staining.

**Note:** Use extreme care in preparation and use of Ammoniacal Silver Solution. Store Ammoniacal Silver Solution in a refrigerator to avoid the formation of explosive compounds. If Ammoniacal Silver Solution is exposed to sunlight, it will explode. Dispose of waste observing all local, state and federal laws.

**Procedure (Standard):**

1. Deparaffinize sections if necessary and hydrate to distilled water.
2. Place slide in working Acidified Potassium Permanganate Solution for 1 minute.
3. Rinse in 3 changes of distilled water.
4. Differentiate in Potassium Metabisulfite Solution for 1 minute.
5. Rinse in running tap water for 3 minutes.
6. Rinse in distilled water.

Storage: 2° C  25° C**Mixed Storage Conditions.  
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
7. Apply Ferric Ammonium Sulfate Solution for 30 seconds.
8. Immediately rinse slides in running tap water for 2 minutes.
9. Rinse in 2 quick changes of distilled water.
10. Apply working Ammoniacal Silver Solution for 1 minute.
11. Rinse quickly in 3 changes of distilled water.
12. Place slide in 20% formalin for 3 minutes.
13. Rinse in running tap water for 3 minutes.
14. Rinse in 2 changes of distilled water.
15. Apply Gold Chloride Solution for 2-5 minutes.
16. Rinse in 2 changes of distilled water.
17. Apply Sodium Thiosulfate Solution for 1-2 minutes to remove unreduced silver.
18. Rinse in tap water for 2 minutes.
19. Counterstain using Nuclear Fast Red Solution for 5 minutes.
20. Rinse in tap water.
21. Rinse in distilled water.
22. Dehydrate through graded alcohols.
23. Clear, and mount in synthetic resin.

### References:

1. Carson, FL., Histotechnology: A Self Instructional Text, ASCP Press, Chicago, IL. Pages 150-155, 1990.
2. Sheenan, D.C., Hrapchak, B.B. Theory and Practice of Histotechnology, 2<sup>nd</sup> Edition. CV Mosby, St. Louis, MO. Pages 181-182, 1980.
3. Churukian, CJ., Prolonging the Shelf-life of Solutions Containing Silver Nitrate. Histologic, Volume 10, Page 147, 1980.
4. Churukian, CJ., Modified Gomori's method for staining reticulum and collagen. Histologic, Volume 2, Page 23, 1972.
5. Wellington, EF., The Explosive properties of ammoniacal-silver solutions. Journal of Medical Lab Technology, Volume 22, Pages 220-223, 1965.

Storage: 2° C  25° C

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6. Gomori, G., A Modification of the Silver Impregnation Method of Staining Reticular Fibers. American Journal of Clinical Pathology, Volume 21, Pages 897-899, 1951.
7. Gomori, G., Silver Impregnation of Reticulum in Paraffin Sections. American Journal of Clinical Pathology, Volume 13, Pages 993-1002, 1937.

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