

Feulgen, Kit

Reference: AP0243



1 of 2

INTENDED USE AND PRESENTATION:

For *in vitro* diagnostic use.

AP0243. 100 Tests.

APPLICATIONS:

The Feulgen kit was designed to demonstration of DNA in histological sections.

The interpretation of the stain results is the full responsibility of the user. Any experimental result must be confirmed by a medically established diagnostic product or procedure.

PRODUCT COMPOSITION:

The Feulgen kit is composed by:

| Reagent | Name | Volume | Storage |
|---------|-------------------------------------|--------|---------|
| A | Hydrochloric acid solution 1M | 30 mL | 2-8 °C |
| B | Schiff reagent according to Feulgen | 30 mL | 2-8 °C |
| C | Sodium biosulphite solution | 30 mL | 2-8 °C |
| D | Light Green solution | 30 mL | 2-8 °C |

METHODS AND PROCEDURE:

Principles of the method: The method is divided into two parts:

- Acid hydrolysis (5N HCl, ambient temperature, 40 minutes), designed to separate selectively 2 purine bases, namely adenine and guanine, from DNA molecule.

- Staining of apurinic acid resulting from hydrolysis with Schiff reagent. This reagent can be used since free deoxyribose changes to aldehyde in acid environment. Feulgen reaction is highly selective for DNA.

In fact, RNA does not react because the presence of a hydroxyl on carbon 2 of ribose prevents HCl from hydrolysing sugar. Moreover, this reaction allows a very precise localisation of DNA since, after purine bases have been removed, deoxyribose radicals are bound to phosphoric acid of apurinic acid macromolecule. A positive reaction can be said to have taken place on 2 conditions: 1) after acid hydrolysis, Schiff reagent succeeds in staining specimen; 2) Schiff reagent does not succeed in staining a control section from the same preparation which has not undergone hydrolysis.

Specimen: Paraffin-embedded tissue samples should be used.

Procedure time: 1 hour 30 minutes.

Staining procedure:

- 1) Deparaffinize and hydrate for paraffin section.
- 2) Put the slide in distilled water.
- 3) Incubate with **Reagent A** in a humid chamber for 10 minutes at 60°C.
- 4) Incubate one minute at room temperature.
- 5) Wash in distilled water.
- 6) Stain with **Reagent B** for 60 minutes.
- 7) Drain the slide and without washing incubate with **Reagent C** for 2 minutes.
- 8) Wash in distilled water.
- 9) Counterstain with **Reagent D** for 15-30 seconds.
- 10) Wash for at least 15 minutes in distilled water to remove the excess counterstain.
- 11) Dehydrate in alcohols of increasing clear in xylene and mount preparation.

See our web site at www.gennova-europe.com for detailed protocols ancillary reagents and support products.

EXPECTED RESULTS:

During the reaction of the different solutions of the kit with the tissue sections, resulting in the following stains:

| | |
|-----------|---------|
| ADN | Magenta |
| Cytoplasm | Green |

REQUIRED MATERIALS BUT NOT SUPPLIED:

All reagents, materials, and laboratory equipment for this procedure are not provided with this kit. This includes adhesive slides and cover slips, positive and negative control tissues, xylene or adequate substitute, ethanol, distilled H₂O, pipettes, Coplin jars, glass jars, moist chamber, histological baths, mounting materials, and microscope.

Buffered solutions for and other auxiliary reagents are available from Gennova Scientific.



Catalog number



Batch code



In Vitro diagnostic medical device



Temperature limitation



Expiration date



Test number



Manufacturer



See instruction for use



Gennova Scientific, S.L.
C/ Johann Gutenberg, 4F. Pol. Ind.
El Caamo I • 41300 San Jose
de La Rinconada • Sevilla, SPAIN
Telefono: +34 954 150767
Fax: +34 955 266494

info@gennovalab.com
www.gennova-europe.com

Feulgen, Kit

Reference: AP0243



2 of 2

STORAGE AND STABILITY:

Store at 2-8 °C until the expiration date printed on product label. Do not use after the expiration date. Keep the containers tightly closed. After the first opening, the product is usable until the expiry date stated on label of intact product. Waste from solutions must be disposed under the procedure of hazardous substance. If the product is stored under different conditions from those stipulated in these technical indications, the new conditions must be verified by the user.

Gennova Scientific guarantees that the product will maintain all of the described characteristics from the production date until the expiration date, as long as the product is stored and used as recommended. No other guarantees are provided. Under no circumstances is Gennova Scientific obliged to cover damages caused by use of this reagent.

TROUBLESHOOTING:

If unusual staining is observed or any other deviations from the expected results, please read these instructions carefully, and if this does not solve the problem, please contact Gennova Scientific's technical support department or your local distributor.

PRECAUTIONS:

Use only by qualified personnel. Read with attention the information written on the label (dangerous symbols, risks and safety phrases). Consult always the safety data sheet (MSDS) where the information about the risks of the preparation, precautionary measures during use, first aid and disposal are available. Use proper protective equipment in order to avoid contact with reagents and samples in the eyes, skin, and mucosal tissues. MSDS is available upon request.

PERFORMANCE CHARACTERISTICS:

Gennova Scientific has performed studies to evaluate the functioning of this product, concluding that the product is both specific and sensitive for recommended use.

BIBLIOGRAPHY:

Carleton's Histological Technique. Fourth edition. Drury & Wallington.
Clark G.: Staining procedure, fourth edition, Williams and Wilkins - Baltimore
De Tomasi JA. Improving technique of the Feulgen stain Technol 1936; 11:37.

F01IT04_V1R0912_AP0243_English



Catalog number



Batch code



In Vitro diagnostic medical device



Temperature limitation



Expiration date



Test number



Manufacturer



See instruction for use



Gennova Scientific, S.L.
C/ Johann Gutenberg, 4F. Pol. Ind.
El Caamo I • 41300 San Jose
de La Rinconada • Sevilla, SPAIN
Telefono: +34 954 150767
Fax: +34 955 266494

info@gennovalab.com
www.gennova-europe.com