Elastica
van Gieson kit

The stable connective tissue staining for the brilliant differential analysis of nuclei, muscle and elastic fibres

Focussing your histology targets.
Elastica van Gieson kit

Apart from the standard hematoxylin-eosin stain which is used for overview staining, there are numerous other stains available for the specific staining of individual structures. The staining of connective tissue is important in this respect and one of the first stains developed for this purpose was the picrofuchsin stain according to van Gieson. This stain was then supplemented by the resorcin-fuchsin solution developed by Weigert. This stain allows the differential staining of elastic fibres. The elastica van Gieson stain, a combination of Weigert’s hematoxylin, van Gieson’s picrofuchsin and the resorcin-fuchsin solution, allows brilliant differential analysis of nuclei, connective tissue, muscle and elastic fibres. However, this stain has certain practical disadvantages: Weigert’s hematoxylin working solution is generally only stable for 1 day; a reproducible resorcin-fuchsin solution can only be prepared with considerable difficulty; and the solution is of limited stability.

The goal was to develop a kit without these disadvantages. The new kit contains an improved iron hematoxylin which, in solution, is stable for at least 5 days. This makes for effective use of the staining capacity. In addition, due to the high quality of the resorcin-fuchsin solution according to Weigert, the visualisation of elastic fibres is highly reproducible and the stain is delicate and without background. The solutions contained in the kit are highly compatible and enstore optimal results.

Procedure of Elastica van Gieson kit

Staining procedure

1. Deparaffinate and rehydrate sections according to the instructions
2. Elastin according to Weigert 10 min
3. Rinse under running tap water 1 min
4. Weigert’s solution A and B, ratio of 1:1 5 min
5. Rinse under running tap water 1 min
6. Picrofuchsin solution 2 min
7. EtOH 70 % 1 min
8. Increasing alcohol series, 2 x Neo-Clear® or xylene
9. Mount with Neo-Mount® or Entellan®new

Material: formalin- or bouin-fixed paraffin sections should be used.
Preparation: mix Weigert’s iron hematoxylin solution A with solutions B, in ratio of 1:1.

Results

<table>
<thead>
<tr>
<th>Structure</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nuclei</td>
<td>black-brown</td>
</tr>
<tr>
<td>Elastic fibres</td>
<td>black</td>
</tr>
<tr>
<td>Collagen</td>
<td>red</td>
</tr>
<tr>
<td>Muscle</td>
<td>yellow</td>
</tr>
</tbody>
</table>

Note: Weigert’s iron hematoxylin is also available as a single reagent.
Your advantages of the Elastica van Gieson kit:

- Improved formulation
- Excellent reproducibility
- Ready-to-use solutions
- More stable working solution – iron hematoxylin solution acc. to Weigert
- High yield and quality
- Selected raw materials
- Environmentally friendly packaging
- Developed, manufactured and controlled acc. to DIN EN ISO 13485

Ordering information

<table>
<thead>
<tr>
<th>Product</th>
<th>Merck Cat.No.</th>
<th>Package size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elastica van Gieson kit</td>
<td>1.15974.0001</td>
<td>500 ml Weigert’s solution A, 500 ml Weigert’s solution B, 500 ml Elastin solution acc. to Weigert and 500 ml Picrofuchsin solution acc. to van Gieson</td>
</tr>
</tbody>
</table>

Additional reagents

<table>
<thead>
<tr>
<th>Product</th>
<th>Merck Cat.No.</th>
<th>Package size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weigert’s iron hematoxylin kit</td>
<td>1.15973.0001</td>
<td>500 ml Weigert’s solution A and 500 ml Weigert’s solution B</td>
</tr>
<tr>
<td>Neo-Clear®</td>
<td>1.09843</td>
<td>5 l, 4 x 5 l</td>
</tr>
<tr>
<td>Neo-Mount®</td>
<td>1.09016</td>
<td>500 ml</td>
</tr>
<tr>
<td>Entellan® new</td>
<td>1.07961</td>
<td>100 ml, 500 ml</td>
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<tr>
<td>Ethanol absolute GR for analysis ACS, ISO, Reag. Ph Eur</td>
<td>1.00983</td>
<td>1 l, 2.5 l, 5 l</td>
</tr>
<tr>
<td>Ethanol denatured with about 1% ethyl methyl hetone GR for analysis</td>
<td>1.00974</td>
<td>1 l, 2.5 l</td>
</tr>
</tbody>
</table>
Further information:
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