Zebra’s slide labelling solution

XYLENE RESISTANT LABELS FOR H&E STAINING

Reliable identification of histology slides
Zebra has developed a labelling solution for histology labs to easily and reliably identify tissue specimen slides. Labs process thousands of samples each year, enabling diagnosis of a variety of diseases. From patient to slide creation, the correct identification of tissue is vital. A study of errors in histology in a U.S. hospital* showed that 35% of errors were detected in the labelling stage of sample processing. It was found that the introduction of technology and the adoption of automatic tracking systems dramatically reduced errors in specimen processing.

Staining slides
Cells are colourless, so to enable examination and diagnosis, staining techniques are essential to make the tissue visible down the microscope. The mostly widely used staining technique used in histopathology is haematoxylin and eosin (H&E) in which the nuclei of the cells are stained blue and the cytoplasm and other tissues are stained various shades of pink. This shows the cellular changes associated with disease. Specially designed to resist the dip cycles of xylene and graded alcohols involved in this process, yet remain legible and scannable, Zebra’s 8000T Lab Resist label material is ideal where standard labels would fail.

Slide creation process
To create a slide which can be used for analysis, the tissue must first be processed.

Total printing solution
Zebra has the printer, ribbon and scanner to create durable, high-quality labels to improve process flow and maintain a link between patient and sample. With Zebra’s easy-to-use ZD420 cartridge printer, users can quickly and efficiently print labels on-demand. In order to follow best practice, a sample should be labelled as early as possible and given an identity at the start of the slide creation process. Part numbers and details are below.

<table>
<thead>
<tr>
<th>Label</th>
<th>Ribbon</th>
<th>Printer</th>
<th>Scanner</th>
</tr>
</thead>
<tbody>
<tr>
<td>8000T Lab Resist white polyester labels 22mm x 18mm</td>
<td>Image Lock ribbon for extreme durability- roll and cartridge formats</td>
<td>ZD420 cartridge printer Healthcare power supply 200 and 300 dpi options</td>
<td>Part number DS4308-HC</td>
</tr>
</tbody>
</table>

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**Fixation**

**Dehydration**

**Embedding**

**Mounting**

**Sectioning**

**Observation and evaluation**

Samples of tissue are taken from patients and normally put into fixative such as formalin to prevent the breakdown of the tissue. This is called fixation. They are then dehydrated and embedded in a block of paraffin wax which enables the sample to be sliced into sections, mounted on a slide and then stained to allow observation of the cells from the tissue.

**Staining**

Typically including a series of dip cycles including Xylene, Alcohols, water, Haematoxylin and Eosin.

**Slide Labelling**

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