



# Customer Testimonial

## Queen Elizabeth Hospital, Gateshead, UK

### Excellent Results with Leica PELORIS™ Xylene-Free Processing

The histocytology department at the Queen Elizabeth Hospital (QEH) recently compared Leica Peloris xylene-free processing with their previous “gold standard” protocol on their existing conventional processor (Sakura VIP). The comprehensive study looked at all aspects of tissue processing including H&E and immunohistochemistry (IHC) staining. From the results achieved, QEH concluded that: “The xylene-free (isopropanol) method of processing histological tissue is as least as good as the routine alcohol/xylene regime used at the QEH”.

### The Study

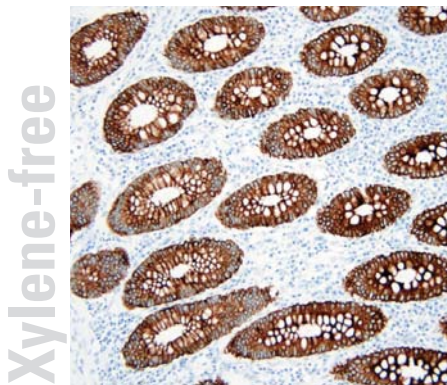
QEH devised a rigorous test plan to accurately compare Peloris xylene-free processing to the results achieved using their existing processor.

The study evaluated samples from 40 cases comprising the following tissue types:

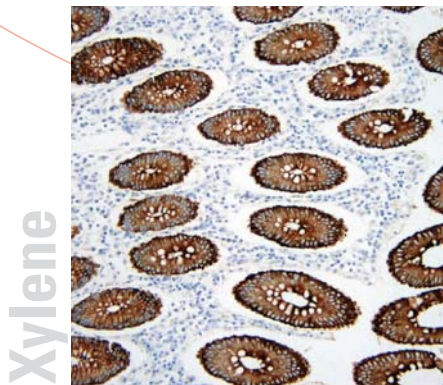
- Breast
- Uterus
- Colon
- Ovary
- Lymph node and Omentum

Xylene-free processing “performs as well as the routine alcohol/xylene regime used at the QEH ... with added health and safety benefits along with a reduction in processing time”.

QEH, Histocytology Department.



CK7 x 10 mag processed on Peloris



CK7 x 10 mag processed on VIP

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MICROSYSTEMS

Duplicate blocks were created from each case with matching dimensions from the same tissue area. One set of blocks were processed on the Leica Peloris and the other on the existing conventional instrument.

The results were then evaluated for cutting, tissue preservation and staining quality.

## Results: Cutting and H&E

QEH evaluated cutting and H&E staining using a semi-quantitative record sheet and criteria adopted from UKNEQAS (the United Kingdom National External Quality Assessment Service).

Peloris xylene-free processing scored highly on all criteria with excellent results across all tissue types.

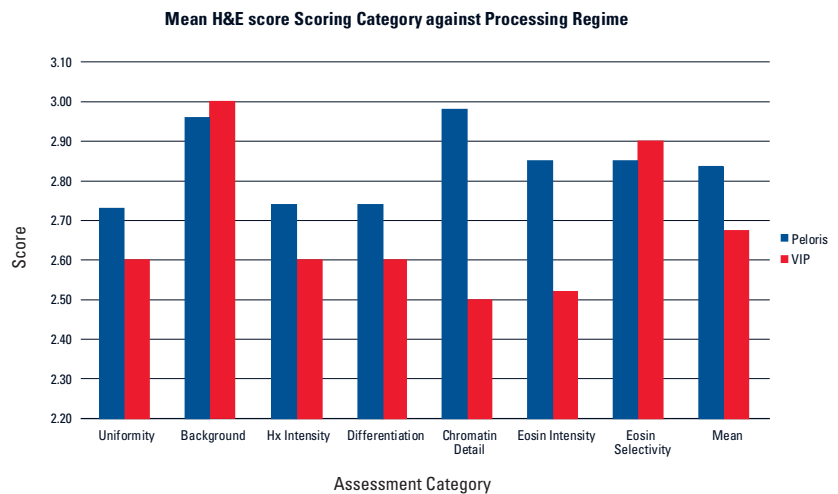
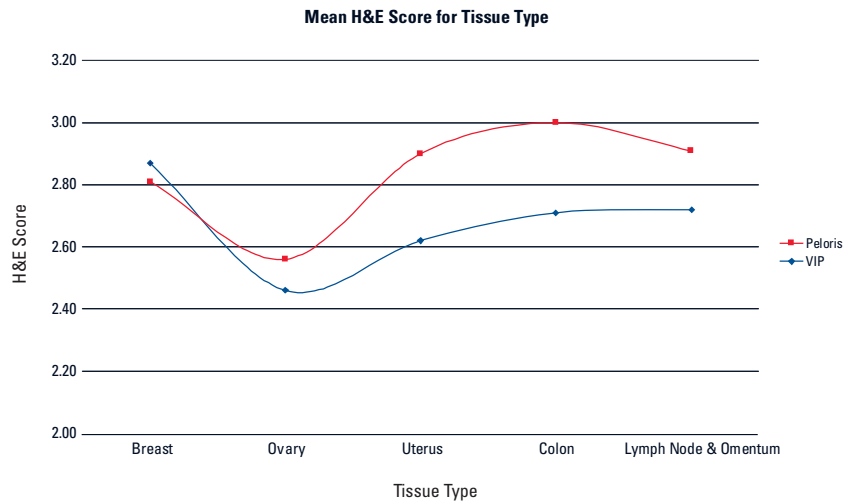
Peloris also outscored the conventional system in six out of the eight H&E assessment categories and in particular scored highly for chromatin detail and staining intensity.

## Results: IHC

QEH also found that Peloris processing also improved IHC results.

The IHC scoring regime used five criteria. Peloris xylene-free processing produced noticeably superior intensity and sensitivity and overall scored higher than conventional processing for each criteria.

The study also compared results for nine antibodies and again Peloris improved overall staining quality with superior or equal results for seven antibodies.



## Conclusions

At the end of the study, the cutting, H&E and IHC results demonstrated that Peloris xylene-free tissue processing “performs as well as” the “gold standard” routine alcohol/xylene processing while also offering additional benefits including:

- Reduced processing time
- Improved nuclear preservation for both H&E and IHC
- A beneficial effect on antibody expression

## Reference

Hodgson C, Kelly P. Assessing the Quality of the Peloris Dual Retort Rapid Tissue Processor and Bond-max automated immunostainer. Histochemistry Department, Queen Elizabeth Hospital, Gateshead UK. 2007

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