



Liqui-PREP™

The Next Generation of Liquid Cytology

Manual Technical Tips

TIP Number: 011

Subject: Giemsa Staining

TECHNICAL TIP OVERVIEW:

This Technical Tip is presented to aid in Giemsa Staining with the use of Liqui-PREP™ Processed Slides.

NOTE: Technical Tips are intended to be suggested guidelines for handling cytology specimens. The Laboratory Professional may use these guidelines or make modifications as needed to process a given specimen

Like all stains, Giemsa Stains vary in concentration, formulation, and activity, depending on the supplier of the stains. With this as the ruling fact, the following suggestions are based on the LGM experience using Richard Allan Scientific Stains.

Giemsa Stains like a pH of 6.6 to 7.2. The actual optimal stain pH depends on the manufacturer formulation. The stain LGM uses acts optimally at 6.6 to 6.9 pH.

Another consideration is the nature of the Liqui-PREP™ slide. The Cell Base encapsulated slides are in an extremely stain receptive ethanol based media at an approximate pH of 6.6 to 7.0. Therefore, using standard concentrations and staining times will produce over-stained cells. It will be necessary to adjust either the staining times, the stain dilution or both. Please review the **Manual Technical Tip 11 Adjusting Staining Protocols** to adjust the Giemsa Stains using the locally available Giemsa Stains.

THE LGM GIEMSA STAINING PROTOCOL using Richard Allan Scientific Stains:

- Air Dry the Liqui-PREP™ slides.
- Change the slide phase from Ethanol to Methanol - Dip the Liqui-PREP™ slides in Absolute Methanol for 15 to 30 seconds.
- Stain the Liqui-PREP™ Slide in Giemsa Stain for 5 minutes (the manufacturer suggests staining time of 25 minutes. LGM found this produced a overly stained Liqui-PREP™ Slide)

NOTE: LGM dilutes the Stock Giemsa stain 1:50 using Phosphate Buffer pH 6.6 to produce a working stain. The Manufacturer directions are to dilute the Stock Giemsa Stain 1:25 using Phosphate Buffer pH 6.6.

- After staining the excess stain is rinsed off using distilled water.
- Air Dry the stained slides.
- After drying, read the slides. (LGM does not use slide covers, however, there is no reason the slides can not be slide covered after drying and then diagnosed.)

Remember, because the Liqui-PREP™ slide is extremely stain receptive and at the perfect pH for the Giemsa Stain, staining times and concentrations may have to be adjusted. LGM experienced shorter time to complete the staining protocol and reduced the stain cost by the increased dilution.

Any questions, contact your local Liqui-PREP™ representative or:

LGM International, Inc.
285-A North Drive
Melbourne, FL USA 32934
Telephone: (321) 254-0480; Fax: (321) 254-0481
Email: sales@liquiprepreagents.com