Data Sheet

Mollifex Tissue Softner

How it works

Mollifex is used to soak the cut face of paraffin embedded tissue blocks prior to sectioning is useful to facilitate the mechanical process of sectioning. By rehydrating the tissue, Mollifex allows it to be cut smoothly rather than be fractured. This process also reduces the common problems of uneven staining and loss of detail which result from improper or excessive processing of some tissues.

Use of Mollifex

Mollifex Tissue Softener is used principally in histology laboratories for soaking the face of trimmed paraffin blocks. This procedure results in increased ease of section cutting as well as improved microanatomical detail in the sections. For Laboratory Use only

- When not in use keep in closed bottle
- Store at room temperature (15-30°C).
- Use before date printed on the label.

Equipment and Materials Used in this application

- Mollifex Tissue Softener
- Suitable container for soaking the cut faces of paraffin blocks in Mollifex Tissue Softener.
- Optional: Freezer for maintaining Mollifex Tissue Softener and paraffin blocks at 0°C during soaking process.

Paraffin Block Preparation

No special preparation of the paraffin blocks is required. The usual procedure is to rough trim the paraffin block face to expose the embedded tissue prior to soaking. This may be accomplished by a razor cut on the surface of the block to expose tissue or by using the recommended procedure below. Tissue blocks prepared by any standard paraffin processing schedule are usable and may be enhanced by the soaking process.

Recommended Procedure

1. Attach paraffin block to microtome chuck as usual and cut sections until tissue is well exposed.
2. Remove chuck holding paraffin block from microtome and place so that all exposed tissue is bathed in the Mollifex Tissue Softener solution.
3. Mollifex Tissue Softener penetrates tissue at a rate of about 3mm per 24 hours. Soaking may proceed from a few hours to overnight depending on the number of sections required. Wynnchuck (1992) has reported that soaking paraffin blocks in Mollifex Tissue Softener solution for 30 minutes at 0°C provides good results.
4. Remove block from Mollifex Tissue Softener, wipe block dry, and place chuck back on microtome.
5. Discard the first few sections if swelling of the tissue has occurred.

Limitations of Use

Numerous factors affect the fixation and processing of histological tissues and, thus, the quality of the resulting tissue sections. Mollifex Tissue Softener will make the tissues softer and, therefore, may produce better, flatter sections. Mollifex Tissue Softener is at its best with epithelial tissues and blood rich tissues where crumbliness is a problem. However, the results with Mollifex Tissue Softener may vary depending on the tissue type, fixation and processing procedures used. We recommend that users evaluate Mollifex Tissue Softener on paraffin blocks from a range of processing techniques and tissue types in order to determine the most effective use of the product in their laboratories.

References

Wynnchuck, M. 1992. Minimizing Artifacts in Tissue Processing: Part 1. Importance of Softening Agents. J. Histotech. 15:(4) 321-323.