**Introduction**

PreAnalytiX has developed a system for preservation of histomorphology and nucleic acids in paraffin-embedded tissue (PET) samples. The system is comprised of a collection container for formalin-free fixation and stabilization of tissue specimens plus purification kits for isolation of DNA, RNA and microRNA (miRNA) from PET.

The PAXgene Tissue System is for Research Use Only. Not for use in diagnostic procedures. No claim or representation is intended to provide information for the diagnosis, prevention or treatment of disease.

**Study Design**

Stabilization in PAXgene Tissue Container and Storage in PAXgene Tissue Stabilizer

- Fixation/Stabilization in PAXgene Tissue Container and Storage in PAXgene Tissue Stabilizer
- Materials and Methods
- Results
- Conclusion

**Materials and Methods**

- RNA isolation, PET
- RNA isolation, FFPE
- RT-PCR
- Gel electrophoresis
- Real-time RT-PCR
- Microarrays
- Immunohistochemistry
- Laser capture microdissection
- Green fluorescent protein
- Mass spectrometry
- Western blotting
- EdU incorporation
- TUNEL staining
- Immunofluorescence
- Whole genome sequencing
- Single cell RNA sequencing
- Mass spectrometry proteomics
- Flow cytometry
- Cell culture
- Cytometry
- Imaging
- Microscopy
- Histology

**Results**

**Figure 1:** H&E stained sections of PAXgene Tissue PET processed after 6 months in PAXgene Tissue Stabilizer at -20°C and FFPE processed after 24h with NBF

**Figure 2:** H&E stained sections of PAXgene Tissue PET processed after 6 months in PAXgene Tissue Stabilizer at -80°C

**Figure 3:** Correlation of gene expression levels in snap-frozen tissue, FFPE tissue and PAXgene Tissue PET processed after tissue storage at various conditions

**Figure 4:** Correlation of mRNA expression levels in snap-frozen tissue and PAXgene Tissue PET processed after tissue storage at various conditions

**Figure 5:** Endpoint RT-PCR of gene fragments ≤1kb with RNA from PAXgene Tissue PET, FFPE or snap-frozen tissue

**Figure 6:** Gel electrophoresis of genomic DNA isolated from PAXgene Tissue PET, snap-frozen or FFPE tissue

**Conclusion**

- The PAXgene Tissue System is for Research Use Only. Not for use in diagnostic procedures. No claim or representation is intended to provide information for the diagnosis, prevention or treatment of disease.

- The PAXgene Tissue System is intended to preserve histomorphology, nucleic acids and proteins in paraffin-embedded tissue specimens.

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**Summary**

The PAXgene Tissue System enables freezing of tissue specimens in the PAXgene Tissue Stabilizer reagent at -20°C or -80°C for at least 6 months, thereby preserving histomorphology, nucleic acids and proteins in paraffin-embedded tissue specimens.

**Key Characteristics**

- Preserves histomorphology and nucleic acids in paraffin-embedded tissue samples
- Applicable for both short- and long-term storage
- Preservation of histomorphology and nucleic acids
- Suitable for various experimental techniques
- Ideal for research applications

**References**

- PreAnalytiX:
- Hombrechten, Switzerland:
- PreAnalytiX GmbH, Hilden, Germany