



National Human Genome Research Institute (NHGRI)

Patented & Patent-pending Technologies Available for Licensing

Tissue Microarrays For Rapid Molecular Profiling

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E-272-1999, E-273-1999,
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Summary

This technology includes an instrument that obtains small (< 1mm) core samples of biological tissue from regions of interest in paraffin embedded biological tissue blocks. The core samples are placed in a regular array in a new paraffin block, creating a tissue array of thousands of selected samples for analysis. This new array block may now be sectioned into up to 200 nearly identical slides, each containing small discs of the original specimens. These slides can be used as starting material for high throughput molecular screening, such as for DNA and RNA *in situ* hybridization as well as immunohistological staining.

Potential Commercial Applications

This invention provides a way to construct a tissue array consisting of a much higher number of tissue specimens than previously possible. Also, this device automates the process of creating arrays and eliminates tedious hand operations while avoiding the problem of extensive damage to the donor blocks.

Related Articles

Kononen J., et al., *Tissue Microarrays for High-Throughput Molecular Profiling of Tumor Specimens*. Nature Medicine 4:844-47 (1998).
<http://www.nature.com/nm/journal/v4/n7/pdf/nm0798-844.pdf>

Key Words

Tissue Microarray, *In Situ* Hybridization, Immunohistological Staining, DNA, RNA