

Gel Extraction: Competitive Comparison of JETSORB, Qiaex II, Nucleotrap, and Geneclean

Specification	JETSORB	Qiaex II	Nucleotrap (MN)	Geneclean
Technology	Silica Batch Procedure	Silica Batch Procedure	Silica Batch Procedure	Silica Batch Procedure
Type of matrix	Spherical silica beads of homogeneous size	Spherical silica beads of homogeneous size	Spherical silica beads of homogeneous size	Crushed glass; variable size
Handling of Silica Matrix	Easy	Easy	N.D.	Inconvenient****
Time needed per preparation	20 - 25 min	20 - 25 min	20 - 25 min	25 - 30 min
Sodium iodide used?	no	no	n.d.	yes***
Extraction from TAE gels	yes	yes	yes	yes
Extraction from TBE gels	yes	yes	n.d.	(yes)**
Range of fragment sizes	50 bp - 50 kb	100 bp - 50 kb	200 bp - 20 kb	200 bp - 20 kb*
DNA Quality	highly pure	highly pure	highly pure	pure
DNA suitable for:				
Sequencing	yes	yes	yes	variable
Restriction/Ligation	yes	yes	yes	variable
PCR	yes	yes	yes	variable

* = higher fragment sizes only with Geneclean II and III. Geneclean can only purify fragments from 500 bp up to 5 kb.

** = TBE gels require the presence of an extra buffer

*** = Sodium Iodide is difficult to remove from DNA samples and may affect downstream applications.

**** = Only in the GeneClean III kit the matrix is relatively easy to resuspend. GeneClean and GeneClean II require vigorous vortexing in order to achieve a homogeneous suspension.