

Gel Extraction: Competitive Comparison of JETQUICK 'Gel', Qiaquick 'Gel', Nucleospin 'Gel', and Geneclean with spin option

Specification	JETQUICK	Qiaquick	Nucleospin (MN)	Geneclean + Spin Option
Technology	Spin procedure	Spin procedure	Spin procedure	Silica Batch Procedure
Type of matrix	Silica membrane	Silica membrane	Silica membrane	Crushed glass; variable size
Handling of Silica Matrix	Convenient	Convenient	Convenient	Inconvenient****
Time needed per preparation	15 - 20 min	15 - 20 min	15 - 20 min	20 - 25 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 - 10 kb	70 bp - 10 kb	300 bp - 5 kb	200 bp - 20 kb*
Capacity per prep	≥ 20 µg	10 µg	10 µg	5 µg
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 ("TBE Modifier")

*** = 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.