

QIA-Hints



QIAGEN Technical Services are always available to answer your questions!

DNA cleanup

Q What kit can I use to purify short PCR products?

A QIAGEN has developed a range of kits designed for specific DNA cleanup applications. For PCR products from 100 bp to 10 kb, the QIAquick® PCR Purification Kit provides typical recoveries of >90%. The MinElute™ PCR Purification Kit is well suited for cleanup of smaller fragments, from 70 bp to 4 kb, in only 6 minutes. PCR products purified using this kit are concentrated due to the small elution volumes used in the MinElute procedure. Alternatively, the QIAEX® II Gel Extraction Kit can be used for batch purification of PCR products as small as 40 bp, from either gels or solutions.

DNA isolation

Q I'm using tissue samples that are very tough and difficult to digest. How can I improve genomic DNA yields from these tissues using the DNeasy® Tissue Kit or the QIAamp® DNA Mini Kit?

A The efficiency of DNA isolation requires thorough disruption of the sample, generally using proteinase K. To improve digestion of tough tissue samples, lengthen the proteinase K incubation time at 55°C to 1–3 hours or even overnight. You can also improve DNA yields by increasing the amount of proteinase K in the reaction, or, alternatively, adding extra proteinase K after several hours of digestion.

Although the DNeasy and QIAamp DNA procedures require no mechanical disruption of the tissue sample, proteinase K digestion may be more effective following mechanical homogenization. Particularly tough tissues can be disrupted using the QIAGEN® Mixer Mill MM 300. Please contact QIAGEN Technical Services for a user-developed protocol.



Please do not hesitate to call your local QIAGEN Technical Service Department if you have any questions or require further information regarding any QIAGEN products.