Isohelix DNA Concentrate & Cleanup Kit DCU-5/DCU-50: Instructions for Use:

Product Details:
The DCU-50 kit is designed for a multitude of uses, including the recovery of low-purity DNA samples, concentration of existing purified DNA into lower volumes, and for the clean-up of samples following PCR or other enzymatic reactions.

- Reclaims low-quality samples.
- Purify samples in under 30 minutes.
- Spin-column free.
- All-in-one kit with no additional solvents required.
- High DNA recovery.
- Efficient removal of primers, dimers, dNTP's, and contaminating proteins from samples.

Kit Contents:

Catalogue Number	DCU-5	DCU-50	Storage Temperature
Number of samples processed	5 x 100ul Recoveries 3 x 50ul PCR Clean-ups	50 x 100ul Recoveries 33 x 50ul PCR Clean-ups	
TE Buffer	500ul	5ml	Room Temperature
Lysis Buffer	500ul	5ml	Room Temperature
SPN Solution	1ml	10ml	Room Temperature
DNA Rehydration Buffer	500ul	5ml	Room Temperature

Storage
Isohelix DNA Kits are shipped at ambient temperature.
Please note that on arrival the kit components should be stored according to the table above.
The kits are stable up to the expiry date if stored as instructed. See box label for expiry date.

Equipment and reagents to be supplied by user:
- Micropipettes with disposable tips (P200 recommended)
- Microcentrifuge capable of RCF = 12,000 x g (with rotor for 1.5/2.0ml tubes)
- 1.5ml or 2ml microcentrifuge tubes
- Vortexer

Technical Assistance
If you have any questions regarding the use of this kit or other Isohelix products please contact us by email at info@isohelix.com or for further information visit the website at www.isohelix.com

Safety and Use of the Isohelix DNA kits:

Buffers in the Isohelix DNA kits contain irritants so appropriate safety equipment such as gloves, laboratory coats and eye protection should be worn. The kits are intended for use by qualified professionals trained in potential laboratory hazards and good laboratory practice. If direct information is not available on any of our compounds this should not be interpreted as an indication of product safety.

This kit has been designed for Research Use Only

Protocol for Concentration/Recovery of Low-Quality samples

1. If the sample starting volume is less than 100µl, add sufficient TE buffer to bring the sample volume up to 100ul.
2. Add 100µl Lysis buffer, vortex briefly then add 200µl SPN buffer. Vortex briefly to mix.
3. Centrifuge at maximum speed, 13.4K rpm/12,000 x g for 10 minutes.
4. Pour off the supernatant then re-spin briefly.
5. Remove all remaining liquid with a pipette tip taking care not to disturb the DNA pellet.
6. Note: The pellet may not be visible. It is important to remove all the liquid.
7. Add 100µl DNA Rehydration buffer to the pellet (or a volume of buffer equivalent to the starting volume). Vortex well and leave at room temperature for at least 5 minutes for the DNA to re-hydrate.

Notes:

- The volumes can be scaled up if the starting sample volume is greater than 100µl.
- Always add a volume of Lysis buffer equal to the starting volume, and a volume of SPN buffer equal to double the starting volume.
- In step 6, resuspend the pellet in a volume of DNA Rehydration buffer equal to the sample starting volume.
- If you wish to also concentrate the sample, reduce the volume of DNA Rehydration buffer used to resuspend the pellet in step 6.

Protocol for Clean-Up of PCR Products & DNA From Enzymatic Reactions

This protocol is suitable for clean-up of PCR products & DNA fragments >200bp. A starting sample volume of 25-100µl can be used per clean-up prep. 50µl input volume is generally recommended.

1. Transfer the sample(s) to a 1.5ml centrifuge tube. Add one volume of Lysis Buffer to the sample(s) *(Example: If the starting volume is 50µl, add 50µl of Lysis Buffer).*
2. Add 3 volumes of SPN buffer to the sample(s) *(e.g. For a 50µl starting sample, add 300µl SPN)*, vortex briefly to mix then incubate at room temperature for 15 minutes.
3. Place sample(s) in a centrifuge and spin at maximum speed, RCF = 12,000 x g for 10 minutes.
4. Using a micropipette (a P200 is recommended), carefully remove all the supernatant from the sample(s) and discard into waste. Return sample(s) to the centrifuge and re-spin samples for 60 seconds, then remove and discard the remaining supernatant with a pipette taking care not to disturb the DNA pellet.
   Note: The pellet may not be visible. It is very important to remove all the liquid as this contains unwanted contaminants.
5. Add a volume of DNA Rehydration Buffer equal to the starting volume of the sample(s) to resuspend the DNA *(e.g., if the starting volume is 50µl, resuspend with 50µl of Rehydration Buffer)*. Vortex briefly and leave at room temperature for at least 5 minutes for the DNA to re-hydrate fully.
   Note: If a more concentrated sample is required, the volume of DNA Rehydration buffer can be reduced as needed.
6. The DNA is now ready to use for downstream processes. For best results use samples immediately.