

HT Instructions for Isohelix DNA Isolation kits: DDK-3/DDK-50

Product Details

Isohelix Buccal DNA Isolation Kits have been specifically formulated to produce high DNA yield and purity from buccal swabs. The kits have been fully optimised at Cell Projects for use on buccal cell samples and offer reduced handling times, increased DNA yields and many other important technical benefits for their use in manual, 96-well or other high throughput formats.

Key Benefits

- ✓ Optimised for buccal cells
- ✓ Fast handling times
- ✓ High purity and yield
- ✓ No solvent based chemicals
- ✓ Protocol integrated to swabs
- ✓ Manual or high throughput formats
- ✓ No columns or filtration
- ✓ Less consumables wastage

Kit Contents

Isohelix DDK DNA Isolation Kits			
Catalogue No.	DDK-3	DDK-50	Storage temperature
Number of preps	3	50	
Solution LS (Lysis buffer)	1.5ml	25ml	Room temperature
Solution PK (Proteinase K)	100µl	1ml	+4°C
Solution CT (Capture buffer)	1.5ml	25ml	Room temperature
Solution TE (Re-hydration buffer)	1ml	15ml	Room temperature

Storage

STORE KITS AT CORRECT TEMPERATURE ON ARRIVAL

Isohelix DNA Isolation 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

- Water bath or heating block at 60°C
- Pipettes with disposable tips
- Centrifuge with rotor suitable for microtitre plates
- 200µl microtitre plates, sealing caps or film.
- Vortexer

Before Starting

1. Prepare a waterbath at 60°C
2. If a precipitate has formed in solution LS, warm at 60°C for a few minutes

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 DDK DNA Isolation kits

The DDK DNA Isolation kits are intended for use by qualified professionals trained in potential laboratory hazards and good laboratory practise. 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 solely for research use only

DNA Isolation Protocol:

Part A – DNA Stabilisation

1. Add 500ul LS solution to the tube containing the buccal swab.
2. Add 20ul PK solution to the tube containing the buccal swab and LS solution. Vortex briefly.

At this point the DNA is stabilised. You may continue with the DNA isolation or store the stabilised swab in a sealed tube at room temperature for at least 3 ½ years.

Part B – DNA Isolation

3. Drain swab and discard.
4. Optional step to increase yield:
 If using **SK-1 swabs**, tip the swab head and stick into a sterile 1.5ml centrifuge tube so that the swab head is uppermost. Spin the tube briefly and using a sterile pipette tip add the recovered supernatant to the 400ul collected previously.
 If using **SK-2 swabs**, spin the SK-2 tube containing the swab head briefly and using a sterile pipette tip add the recovered supernatant to the 400ul collected previously
5. Transfer 100ul of sample to a 200ul microtitre plate. Seal wells with cap strips or sealing film.
6. Incubate plate at 60°C (in an oven or thermal cycler) for 1 hour.
7. Add 100ul CT solution to each well. Pipette to mix.
8. Place the plates in a centrifuge (see note below) and spin at approx. 3000g for 45 to 60 mins. to pellet the DNA.
Note the pellet may not be visible.
9. Place the plate upside down onto tissue paper to remove most of the liquid.
10. Place the plate upside down on tissue paper in the centrifuge plate holder. Pulse the centrifuge up to 40g for 30 secs. to remove all the residual liquid.
Note it is important to remove all of the liquid.
11. Add 40ul TE solution to each well.
12. Leave for at least 15 minutes at room temperature for the DNA to re-hydrate. Vortex the plate, or pipette gently if desired to help resuspend the DNA.
13. Incubate the plate at 80°C for 5 minutes. Spin the plate briefly.
Do not use this step if you require double stranded DNA, for example in restriction digests.

The DNA sample is now ready for use in downstream applications such as amplification.

**Store the DNA sample at 4°C for short term storage or -20°C for long term storage.
 The expected yield from a buccal swab is 2 to 10µg DNA (10 to 70ng/µl).**

Our **DQC-50 DNA Quality Check Kit** is designed specifically to confirm presence of and to test both the quality and quantity of your human DNA by a quick PCR test before you start downstream testing.

Note:

High speed is needed to pellet the DNA. Since plate centrifuges are very variable, this step needs optimisation. Low Speed (less 3000g) spin for 60 mins. Higher speeds (above 4000g) spin for 45 mins. Spinning longer than needed is not detrimental to the DNA.

Other Cell Projects Products

Isohelix DNA Buccal Swabs.

- High yields, blood alternative, reproducible, easy to use, different formats for various extraction methodologies.

Isohelix DNA Silica Gel Capsules

- For use with SK-1 swab kits, air-dries swab in tube giving extended storage times without loss of stability: SGC-50

Isohelix DNA Isolation and Handling kits

- DNA Stabilisation and Lysis kits for the stable storage of DNA at Room Temperature for long periods: DSK-50
- DNA Quality Check by PCR to confirm quality of DNA prior onward experimentation: DQC-50
- DNA Release kits – quick and easy kit for PCR-ready DNA from buccal swabs in under 20 minutes: BEK-25

PCR Products - A range of high quality PCR plastic for 96 well format plates and cap strips

Electroporation - The HiMaX electroporation cuvettes and buffers maximise molecular electroporation and electrofusion efficiencies for Bacteria, Yeast, Insect, Plant and Mammalian cells.

Isohelix is a division of Cell Projects

For swab or DNA isolation queries email: info@isohelix.com www.isohelix.com
 Molecular Biology Solutions www.cellprojects.com