

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

### STORE COMPONENTS AT CORRECT TEMPERATURES ON ARRIVAL

#### Product Details.

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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 HT Formats.

- Optimised to Buccal Cells
- Fast Handling times
- High Purity and Yield
- No solvent based Chemicals

- Protocol Integrated to swabs.
- Manual or HT Formats.
- No Columns or Filtration.
- Less consumables usage

#### Storage and Stability

The DNA Isolation kits are shipped at ambient temperature, on arrival **PLEASE NOTE** that some of the components should be stored according to the table below upon arrival. The Kits are stable for 2 Years if stored as instructed.

Vial	Storage Condition
Solution LS	Room Temperature Approx. +20°C to+22°C
Solution PK	+4°C
Solution CT	Room Temperature Approx. +20°C to+22°C
Solution TE	Room Temperature Approx. +20°C to+22°C

#### Kit contents.

##### **Catalogue No: DDK-3 - Trial kit**

Vial	No.	Qty	Contents
Solution LS	1 x	1.5 ml	Lysis/Storage Buffer
Solution PK	1 x	100 µl	Proteinase K buffer
Solution CT	1 x	1.5 ml	Capture Buffer
Solution TE	1 x	500 µl	Re-Hydration Buffer

One kit contains enough material for 3 extractions.

##### **Catalogue No: DDK-50**

Vial	No.	Qty	Contents
Solution LS	1 x	25 ml	Lysis/Storage Buffer
Solution PK	1 x	1 ml	Proteinase K buffer
Solution CT	1 x	25 ml	Capture Buffer
Solution TE	1 x	10 ml	Re-Hydration Buffer

One kit contains enough material for 50 extractions.

#### General Protocol:

##### Before you start:

1. Prepare 60°C waterbath
2. If a precipitate has formed in Solution LS incubate the tube/bottle at 60°C for few minutes.

##### DNA extraction from the swab

1. Add 500 µl of LS solution to the tube containing the swab.
2. Add 20 µl of PK. Solution, Vortex briefly \*\*

***NB: The DNA can be extracted or the sample kept for at least 2 years at room temperature.***

3. Drain swab and discard
4. Transfer 100µl of sample to a 200µl microtitre plate
5. Incubate plate at 60°C (oven or thermal cycler) for 1 hr.
6. Add equal volume 100 µl of CT solution to the well. Pipette to mix.
7. Place in a centrifuge (1) and spin at approx.. 3000g for 45 to 60 (3) mins to pellet the DNA

**NB: The pellet may not be visible**

**More instructions on next page**

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8. Place plate upside down onto tissue paper and remove most of the liquid.
9. Place plate upside down onto tissue paper in the centrifuge holder.
10. Pulse centrifuge up to 40g for 30 secs.  
**This step will remove all the liquid.**
11. Add 40µl of TE to the well.
12. Leave for at least 5 mins at room temperature to rehydrate the DNA. Vortex the plate.
13. Incubate plate at 80<sup>0</sup> C (2) for 5 mins
14. Vortex and spin the tube briefly.

**NB: Very important to remove all of the liquid**

- 10 Add 150 µl of TE Buffer to the tube
- 11 Leave the tube for at least 5 mins at room temp. to re-hydrate the DNA. Vortex briefly
- 12 Incubate tube at 80°C for 5 mins. Vortex and spin the tube briefly (2)

**The DNA is now ready for amplification or it can be stored. Store the DNA at +4°C short term and at -20°C long term**

**Expected yield 2 to 10 µg (10 to 70 ng/µl)**

## Notes:

- (1) Place the tube with hinge positioned outwards, so liquid can be removed from the opposite site.
- (2) DO NOT use this step if you require double stranded DNA (e.g. for restriction digests)
- (3) 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.

\*\*Storage of DNA in LS Solution + PK has been currently tested for 2 years but it is envisaged that further testing over time will show little instability.

Use our DQC-50 kit to test quality of DNA by a quick PCR test before you start your expensive experiments.

### Isohelix buccal swabs



## 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.

### **Isohelix DNA Isolation and Handling kits**

- DNA stabilising kits for the stable storage of DNA at Room Temperature for long periods -DSK-3/50
- DNA Isolation Kits optimised for swab with buccal cells, no organic solvents, reduced steps, HT formats, No columns or filters --DDK3/50
- DNA quality check by PCR to confirm quality of DNA prior onward experimentation. DQC-50

### **PCR Products.**

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

## Safety and Use of the DDK DNA Isolation kits

**The DDK 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**

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