

## Instructions for Isoheli Buccalyse DNA Release Kit: BEK-3/BEK-50

### Product Details

Isoheli Buccalyse DNA Release Kits have been specifically formulated to produce high yield, PCR-ready DNA from Buccal swabs. The kits use a quick and easy single step/single tube protocol and have been fully optimised at Cell Projects for use on buccal cell samples to produce DNA suitable for standard and qPCR applications.

### Key Benefits

- ✓ Optimised for buccal cells
- ✓ Fast handling times
- ✓ Single step/single tube protocol
- ✓ No solvent based chemicals
- ✓ Protocol integrated to swabs
- ✓ Manual or high throughput formats
- ✓ No columns or filtration
- ✓ Less consumables wastage

### Kit Contents

Isoheli BEK DNA Release Kits		
Catalogue No.	BEK-3	BEK-50
Number of preps	3	50
Buccalyse solution	3 x 400µl	1 x 20ml
Storage Temperature	-20°C	-20°C

### Storage

#### **STORE KITS AT CORRECT TEMPERATURE ON ARRIVAL**

Isoheli Buccalyse DNA Release 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 70°C and 95°C (or thermal cycler if using alternative method)
- Pipettes with disposable tips
- Vortexer

### Before Starting

1. Prepare a waterbath at 70°C if using the standard method or program a thermal cycler as below if using the alternative method
2. Thermal Cycling profile: 70°C for 15 minutes, 95°C for 2 minutes, cool to 20°C

#### Important:

**Rinse mouth with water just before taking the swab to increase the uptake of buccal cells on the swab and reduce contamination from saliva. Take swab as normal from both sides of the mouth.**

### Safety and Use of the Buccalyse DNA Release Kits

The Buccalyse DNA Release 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 release from the swab – standard method for BEK-3/BEK-50:**

1. If not using a swab format which comes with a tube, place the swab in a suitable tube and add 400  $\mu$ l of Buccalyse to the tube containing the swab.
2. Rotate swab to rehydrate and mix. Remove swab or snap the stick and leave swab in the tube. Vortex briefly.
3. Place tube in 70  $^{\circ}$ C water bath for 15 mins. Vortex tube briefly.
4. Reset the temperature of the waterbath to 95  $^{\circ}$ C and once that temperature is achieved, leave the tube for 2 mins.
5. Remove the tube from waterbath and vortex briefly. If the swab was left in, then remove it at this stage. (It is not necessary to remove the swab, but it makes pipetting easier if it is removed.)

**The DNA is now ready for further processing.**

**Use 2 to 5 $\mu$ l Buccalyse extracted DNA per PCR reaction.**

**The Buccalyse released DNA can be stored at 4 $^{\circ}$ C short term, and for up to 1 year at -20 $^{\circ}$ C.**

**If you plan to store the DNA for an extended period of time or need a pure DNA sample we would recommend using the Isohelix DDK Isolation Kit in preference.**

**Expected DNA yield is on average 5 to 10 ng/ $\mu$ l (total yield 2 to 4  $\mu$ g) from an adult.**

**Alternative method using a 96 well plate and thermal cycler in place of a water bath.**

Proceed with steps 1 and 2 as detailed above.

3. Remove 100  $\mu$ l of the BEK solution into a clean well of a 96 well PCR plate. Up to 4 wells per swab sample can be used depending on the number of PCR reactions you plan to run on each swab sample.
4. Cap the wells and heat in a thermal cycler programmed as follows: 70 $^{\circ}$ C for 15 minutes, 95 $^{\circ}$ C for 2 minutes, cool to 20 $^{\circ}$ C.
5. Use 2 to 5  $\mu$ l of the Buccalyse extracted DNA per PCR reaction.

Expected yield and storage recommendations remain as above.

**Other Isohelix Products**

**Isohelix GeneFix™ Saliva DNA & RNA Collectors:**

- Maximizes DNA/RNA Quality and Yields with Long Term Preservation.

**Isohelix DNA and RNA Buccal Swab Collectors**

- Latest Design Improves Collection, Yields, Stability and Integration for Processing.

**DNA Swab Stabilization**

- Physical or Chemical options to Preserve DNA Yields and Integrity over Extended Periods.

**DNA Isolation and Handling Kit Options**

- Specifically Optimized to Maximise DNA Performance for Isohelix Buccal Swabs and GeneFix Saliva Collectors.

**Cell Projects Products**

- **PCR Products** - A full range of high quality PCR plastic for 96 well format plates and cap strips
- **Electroporation** - The HiMaX cuvettes maximise electroporation efficiencies for most cells types.