



Smarter Collection using Isohelix DNA Buccal Swabs

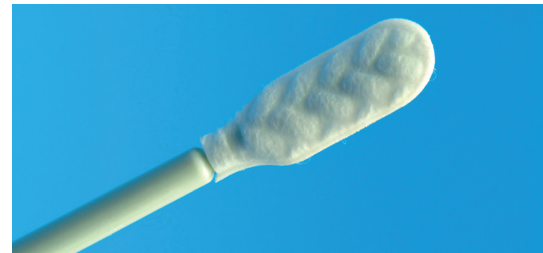
The Isohelix range of Buccal Swabs have been re-designed by using novel plastic materials to ensure that the Buccal Cells and Genomic DNA can be efficiently collected from both Animal and Human sources. Reduced liquid absorbancy within the matrix together with a quick release surface creates a swab that is capable of high levels of uptake and yields of DNA. These significant improvements allow the swabs to be used both for standard DNA buccal sampling, as well as an alternative to blood collection where high DNA yields are required but without the invasive nature of venopuncture sampling.

The Isohelix swab design also reduces the number of steps by incorporating a swab head detachment facility that immediately creates the correct orientation for either Manual or HT DNA purification methodologies. Cell Projects has also taken an integrated technology approach by developing DNA Isolation and Stabilising kits that have been specifically optimised to the Isohelix range of swabs.

- Unique swab matrix significantly improves DNA yields.
- Can be used as an alternative to blood collection.
- 2 swab designs for both manual or HT formats.
- CE marked and FDA class 1 certified for diagnostic use.
- Swab optimised DNA Isolation and stabilising kits available.
- Suitable for animal and human use.

Isohelix swabs are used in

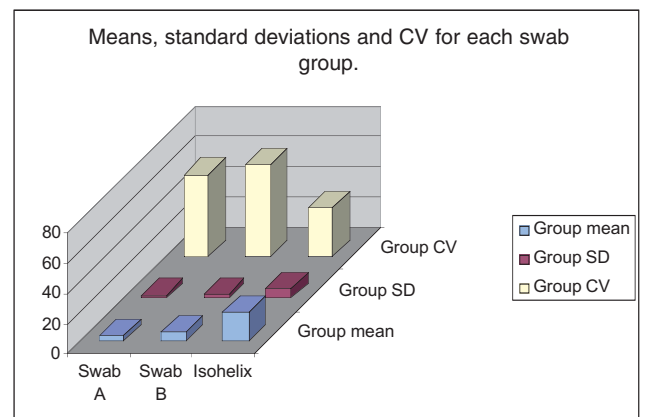
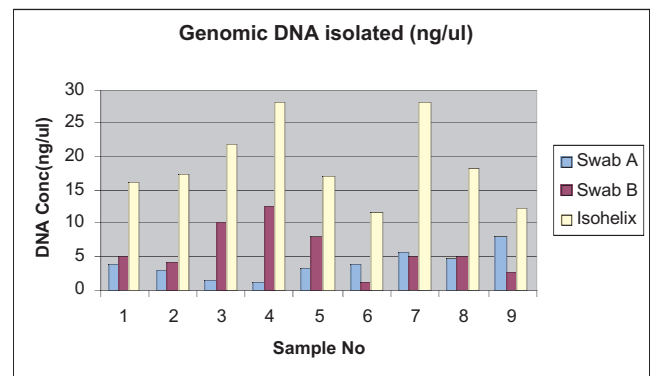
- **Clinical Genotyping**
- **Commercial Diagnostics**
- **Veterinary Genotyping and Diagnostics**
- **Paternity Testing**
- **Forensic and DNA testing**
- **DNA population studies**



Applications include

- **PCR**
- **RFLP-analysis**
- **Restriction Enzyme digestion**
- **Cloning**
- **HLA-Typing**
- **SNP testing**

DNA uptake variations between different swabs



Results demonstrate that Isohelix swabs perform significantly better than other designs in terms of DNA yield and swab to swab repeatability

Full Technical Note available 'Investigation into yields of Isohelix buccal swabs'

For Swab or DNA kit info www.isohelex.com or info@isohelex.com

Isohelix is a division of Cell Projects.Ltd www.cellprojects.com the molecular biology solutions company



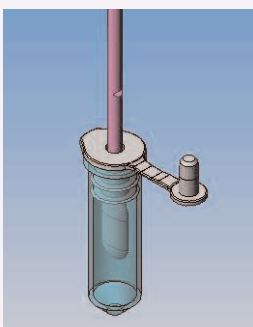
SK-1 Isohelix swab

The SK-1 swab uses all the unique swab material qualities mentioned above and following sampling, you simply snap the shaft just above the swab head and place into a tube then seal for containment. The SK-1 design swab is available in various formats with/without tubes and in multiple and coloured shaft formats.



SK-2 Isohelix swabs

The SK-2 has the same features as the SK-1 except that it includes a unique cap design that allows you to simply push off the swab material from the shaft into the collection tube after sampling. This format has the advantage of being easier to manipulate at the DNA isolation stages whether using manual or HT extraction methods.



Instructions for Isohelix SK-1, SK-3 and SK-4 Buccal Swabs

1		Pull open the package from one end.
2		Remove one of the swabs from the tube.
3		Insert the swab into your mouth and rub firmly against the inside of your cheek or underneath lower or upper lip. For standard DNA collection, rub for approximately 15 seconds. For maximum DNA collection, rub for 1 minute and expand the sampling area. Important – use reasonable firm and solid pressure.
4		Slide the plastic cap over the swab handle with the flat side of the cap facing upwards and the swab facing downwards.
5		Insert the swab into the clear plastic tube and push the cap into place. Next, hold the cap while pulling the swab handle outwards to release the swab material into the tube.
6		Close the cap. The tube is now completely sealed.

Instructions for Isohelix SK-2 Buccal Swabs Stages 1, 2 and 3 as above.

4		Place the swab back into the tube. Do not touch the brush with your fingers.
5		Place your thumbnail in the small groove set in the handle, then snap the handle in two by bending to one side. Let the swab head fall into the tube.
6		Seal the tube securely with one of the caps.

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Buccal DNA Isolation Kit

The 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.

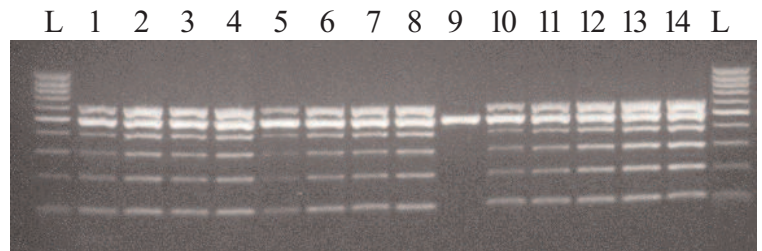
- **High Purity and Yield**
- **Optimised to Buccal Cells**
- **Fast Handling times**
- **Protocol Integrated to swabs.**
- **Manual or HT Formats.**
- **No solvent based Chemicals**
- **No Columns or Filtration.**

Stabilising and Lysis Kit

The Isohelix Stabilising and Lysis kits are designed to fully stabilise your DNA (taken from swabs and other source material) from enzymatic activity that occurs naturally after Buccal sampling. The kit is designed to store the samples at room temperature and shows no visible loss of stability even after 7 months of data collected to date. The DNA LS Kit also contains a component to fully lyse the cells as well as enzymatic inhibitors, this releases all the DNA and maintains the structural integrity.

- **Stabilises your DNA**
- **Improves DNA Yield and Purity**
- **Room Temperature storage**
- **Lyses the cells**
- **Long term storage for DNA**

Shows higher yields of DNA with the Isohelix kits over Column based methodologies



100, 200, 300, 400, 600 bp from human DNA; 500 bp from Lambda

Lane	Sample	Extraction	Final vol.	Used PCR	Lane	Sample
1	Swab 1 (donor 1)	Spin Col	150 µl	5 µl -1/10 dil	9	Blank
2	Swab 2 (donor 1)	Isohelix	150 µl	5 µl -1/10 dil	10	Human DNA 6.25 ng
3	Swab 3 (donor 2)	Spin Col	150 µl	5 µl -1/10 dil	11	Human DNA 12.5 ng
4	Swab 4 (donor 2)	Isohelix	150 µl	5 µl -1/10 dil	12	Human DNA 25 ng
5	Swab 5 (donor 3)	Spin Col	150 µl	5 µl -1/10 dil	13	Human DNA 50 ng
6	Swab 6 (donor 3)	Isohelix	150 µl	5 µl -1/10 dil	14	Human DNA 100 ng
7	Swab 7 (donor 4)	Spin Col	150 µl	5 µl -1/10 dil	L	100 bp DNA ladder
8	Swab 8 (donor 4)	Isohelix				

Cat. No.	Description
	DNA Buccal Swabs
SK-1S	100 x 1 Swab with 5 ml tube and cap individually wrapped, gamma treated and boxed
SK-2S	100 X 1 swab with 2ml tube and SR- special release cap, individually wrapped, gamma treated and boxed
SK-3S	250 swabs, individually wrapped, gamma treated, and boxed.
SK-4S	500 swabs 2 wrapped individually, gamma treated, packed 250 units to a box
	DNA Isolation and Handling kits
DSK-3	1.5ml of Cell Lysis and Long Term DNA stabilising buffer and PK for 3 reactions.
DSK- 50	25ml of Cell Lysis and Long Term DNA stabilising buffer and PK for 50 reactions
DDK-3	Swab Optimised DNA Isolation kit for 3 extractions contains 4 solutions.
DDK-3SK1	As DDK-3 with 3 X SK1 swabs
DDK-3SK2	As DDK-3 with 3 X SK2 swabs
DDK-50	Swab Optimised DNA Isolation kit for 50 extractions contains 4 solutions.
DDK-50SK1	As DDK-50 with 50 X SK1 swabs
DDK-50SK2	As DDK-50 with 50 X SK2 swabs
DDC-50	PCR check kit to test quality of Human DNA taken from swabs for 50 reactions contains 2 solutions

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