



oKtopure

For research use only. Not for use in diagnostic procedures.

Automated nucleic acid purification from leaf, seed, and livestock samples

The oKtopure™ robot has been developed to deliver automated DNA purification from 8 x 96-well microtitre plates in parallel, in combination with the proprietary sbeadex® magnetic bead based chemistry. The instrument delivers standardised, high-throughput purification with high quality DNA suitable for downstream applications such as sequencing, microarrays and SNP genotyping.

Why choose the oKtopure:

- Enables higher throughput and full walk-away DNA purification after lysis step
- Automation of sbeadex-based purification
- Mini purification (20-30 mg starting material)
 - ✓ 8 x 96 plates/1-1.5 hours
- Maxi purification (30-100 mg starting material)
 - ✓ 8 x 96 plates/2.5 hours
- Efficient use of laboratory space
 - ✓ Small format: 170 cm x 76 cm x 88 cm
- Offline tip washing option drives reduced consumable costs through reuse of tips
 - ✓ Savings of up to 50%
- Compatible with existing SNPLine installations
- The variable Z-position dispensing head allows use of both shallow and deep well plates
- sbeadex livestock - one kit for all sample types (excl. blood).

Increased efficiency and highest quality nucleic acid preparation

The oKtopure system is equipped with a 96-tip dispensing head optimised to work with sbeadex-based DNA purification protocols.

The instrument utilises eight magnetic stations to fix the sbeadex beads properly in each well in the purification plate. Fixing the beads in place using the magnetic stations enables the lysis and purification buffers to be easily pipetted without disrupting the bead pellets, and therefore maximises DNA quality and yield.

oKtopure and sbeadex validated plant protocols

The oKtopure instrument has been optimised to deliver purification protocols across a wide variety of plant species and is suitable for purification from leaves, seeds, flour or roots. Our nucleic acid purification team has developed purification protocols for a huge range of sample types including many challenging matrices.

We offer pilot studies to validate protocols for starting materials not previously tested and can establish optimised protocols. Table 1 (next page) provides examples of previously validated species tested during the development and validation of sbeadex chemistry and the oKtopure.

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GENOMIC ANALYSIS BY LGC

Table 1: Validated plant protocols

Plant species	Leaves	Seeds	Plant species	Leaves	Seeds
Onion (<i>Allium cepa</i>)	✓		Apricot (<i>Prunus armeniaca</i>)	✓	
Parsley (<i>Petroselinum crispum</i>)	✓	✓	Barley (<i>Hordeum vulgare</i>)	✓	✓
Peach (<i>Prunus persica</i>)	✓		Beet, sugar (<i>Beta vulgaris</i>)	✓	
Pepper (<i>Capsicum annuum</i>)	✓	✓	Canola/Oilseed (<i>Brassica napus</i>)	✓	✓
Potato (<i>Solanum tuberosum</i>)	✓		Chicory (<i>Cichorium intybus</i>)	✓	
Rice, Asian (<i>Oryza sativa</i>)	✓	✓	Corn (<i>Zea mays</i>)	✓	✓
Rubber (<i>Hevea brasiliensis</i>)	✓	✓	Cotton (<i>Gossypium</i>)	✓	✓
Soybean (<i>Aphis glycines</i>)	✓	✓	Cucumber (<i>Cucumis sativus</i>)	✓	✓
Sunflower (<i>Helianthus annuus</i>)	✓		Flax (<i>Linum usitatissimum</i>)	✓	
Tobacco (<i>Nicotiana tabacum</i>)	✓	✓	Grape (<i>Vitis vinifera</i>)	✓	✓
Tomato (<i>Solanum lycopersicum</i>)	✓		Lettuce (<i>Lactuca sativa</i>)	✓	
Wheat (<i>Triticum L.</i>)	✓	✓	Muskmelon (<i>Cucumis melo</i>)	✓	✓

Table 2: Successfully tested livestock species

Livestock species	Leaves
Bovine, porcine, chicken, goat, sheep, horse, insects, fish	Hair/follicles, ear punches, FTA cards, semen, swabs, saliva, tissue

Consumables

Cat. no.	Description
NAP41607	sbeadex mini plant kit for oKtopure
NAP41640	sbeadex maxi plant kit for oKtopure
KBS-0010-003	96-well non-sterile tip rack (pack of 10)
KBS-0009-002	oKtosh™, concentrated wash buffer (500 mL)
NAP40000L	oKtopure mix plates (Thermo 1.2 mL deep well plate)
KBS-0009-006	Wash buffer bulk reservoirs (pack of 4)
KBS-7001-130	1.2 mL 96-well storage plate (box of 50)
KBS-7001-131	0.8 mL 96-well storage plate (box of 50)

Ordering information

Cat. no.	Description
KBS-0009-001	oKtopure high-throughput DNA purification robot
KBS-0009-003	oKtopure offline tip wash option
KBS-0009-005	Manual 96-pin seed crusher
KBS-0009-015	oktopure 12-month service contract

**Integrated tools.
Accelerated science.**

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