

oKtopure™ - Automated nucleic acid extraction from leaf and seed samples

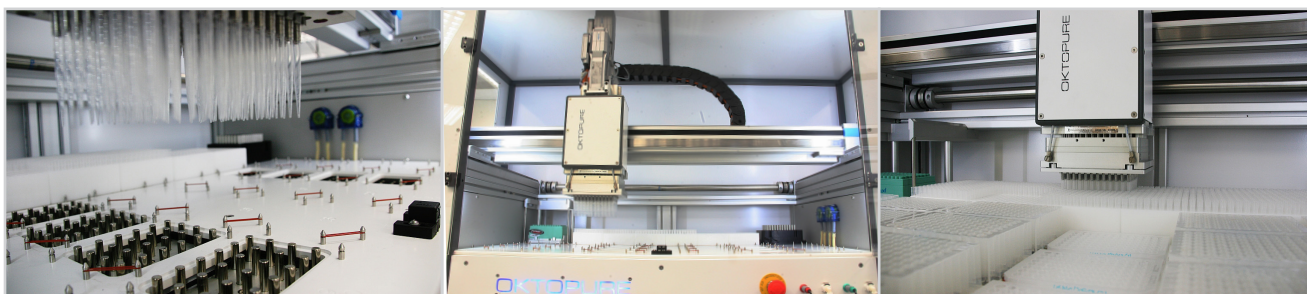
The oKtopure robot has been developed to deliver automated, in parallel DNA extraction from 8 x 96-well microtitre plates, in combination with the proprietary sbeadex® magnetic bead based chemistry. The instrument delivers standardised, high throughput extraction with high quality DNA suitable for downstream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

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 extraction protocols. The instrument utilises 8 magnetic stations to fix the sbeadex® beads to the bottom of each well in the extraction plate. Fixing the beads in place and moving only lysing and extraction buffers maximises DNA quality and yield.

Why oKtopure

- Enables higher throughput and full walk-away automation of sbeadex® based plant extractions
 - 8 x 96 plates / 1 - 1.5 hour for sbeadex® mini extractions (20-30 mg starting material)
 - 8 x 96 plates / 2.5 hours for sbeadex® maxi extractions (80-100 mg starting material)
- Drives increased throughput and efficiency of extraction using sbeadex® chemistry (mini and maxi format)
- Efficient use of laboratory space
 - Small format: 170 cm x 68.5 cm x 65 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
- Customised or preset protocols to suit a wide variety of sample materials.



oKtopure and sbeadex® validated plant protocols

The oKtopure instrument has been optimised to deliver extraction protocols across a wide variety of plant species and it is suitable for extraction from leaves, seeds or flour. Our nucleic acid extraction team has developed extraction protocols for a huge range of sample types including many difficult species. We offer pilot studies to validate protocols for starting materials not previously tested and can establish newly optimised protocols. The table below provide examples of previously validated species tested during the development and validation of sbeadex® chemistry and the oKtopure:

Plant species	Leaves	Seeds
Apricot (<i>Prunus armeniaca</i>)	✓	
Barley (<i>Hordeum vulgare</i>)	✓	✓
Beet, sugar (<i>Beta vulgaris</i>)	✓	
Canola / Oilseed (<i>Brassica napus</i>)	✓	✓
Chicory (<i>Cichorium intybus</i>)	✓	
Corn (<i>Zea mays</i>)	✓	✓
Cotton (<i>Gossypium</i>)	✓	✓
Cucumber (<i>Cucumis sativus</i>)	✓	✓
Flax (<i>Linum usitatissimum</i>)	✓	
Grape (<i>Vitis vinifera</i>)	✓	✓
Lettuce (<i>Lactuca sativa</i>)	✓	
Muskmelon (<i>Cucumis melo</i>)	✓	✓

Plant species	Leaves	Seeds
Onion (<i>Allium cepa</i>)	✓	✓
Parsley (<i>Petroselinum crispum</i>)	✓	✓
Peach (<i>Prunus persica</i>)	✓	
Pepper (<i>Capsicum annuum</i>)	✓	✓
Potato (<i>Solanum tuberosum</i>)	✓	
Rice, Asian (<i>Oryza sativa</i>)	✓	✓
Rubber (<i>Hevea brasiliensis</i>)	✓	✓
Soybean (<i>Aphis glycines</i>)	✓	✓
Sunflower (<i>Helianthus annuus</i>)	✓	✓
Tobacco leaves (<i>Nicotiana tabacum</i>)	✓	✓
Tomato (<i>Solanum lycopersicum</i>)	✓	✓
Wheat (<i>Triticum L.</i>)	✓	✓

Ordering information

Catalogue number	Description	Units
KBS-0009-001	oKtopure high throughput DNA extraction robot	1
KBS-0009-002	oKtowash™, concentrated wash buffer (500 mL)	1
KBS-0009-003	oKtopure off line tip wash option	1
KBS-0009-004	oKtopure mix plates (Thermo 1.2 mL deep well plate)	1
KBS-0009-005	Wash buffer bulk reservoirs (pack of 4)	1
KBS-0009-999	Extended 12 month on-site fully inclusive service contract	1
NAP41610	sbeadex® mini plant	960 tests*
NAP41620	sbeadex® maxi plant	960 tests*

(*) sbeadex® plant kit is also available in different format for higher throughput customers, please contact customer service.

About LGC Genomics nucleic acid extraction solutions

LGC Genomics is an international supplier of nucleic acid extraction solutions, including kits, instrumentation and outsourcing services. We have an unrivalled expertise in DNA / RNA extractions developed through many years experience running our own extraction service laboratories (extracting millions of samples each year) and in developing proprietary extraction chemistries.



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