

## GENESPIN

### High-throughput nucleic acid extractions using spin plates

The Genespin robot has been developed to deliver semi-automated DNA extractions in 96 or 384 formats, in combination with our Kleargene™ chemistry. The Genespin instrument delivers high-throughput extraction of consistently high quality DNA that is suitable for downstream applications, including SNP genotyping using KASP™ chemistry and other PCR-based technologies.

The Genespin can be used in conjunction with all Kleargene kits, including plant extractions using up to 10 mg of leaf starting material.

#### Highest throughput and great DNA quality

The Genespin system is equipped as standard with a 96-tip dispensing head that is optimised to work with Kleargene extraction protocols. Kleargene chemistry is a spin column-based DNA extraction technology, and requires an independent centrifuge to spin the buffers through a silica-membrane.

Achieve DNA yields of up to 1 µg per well for 384-well plates and 4 µg per well for 96-well plates using Kleargene.

#### Genespin and Kleargene validated plant protocols

The Genespin instrument has been optimised to deliver extraction protocols across a wide variety of plant species and is suitable for extraction from leaves and seeds. DNA quality is sufficient for all PCR-based technologies, SNP genotyping using KASP, Southern blots and array technologies.

Table 1 (next page) provides examples of previously validated species tested during the development and validation of Kleargene and the Genespin.



#### Why choose the Genespin?

- High-throughput DNA extraction: 8 x 96-well sample plates / hour
  - ✓ 96-well format: up to 5,500 samples per day
  - ✓ 384-well format: up to 20,000 samples per day
- Cost reduction: In-built tip wash station ensures that a single set of tips is required per run
- Replikator function: the Genespin instrument can be used to prepare DNA dilution plates (max. 384 format)
- Efficient use of laboratory space
  - ✓ Small footprint: 170 cm x 76 cm x 88 cm
- Compatible with existing SNPlines installations.

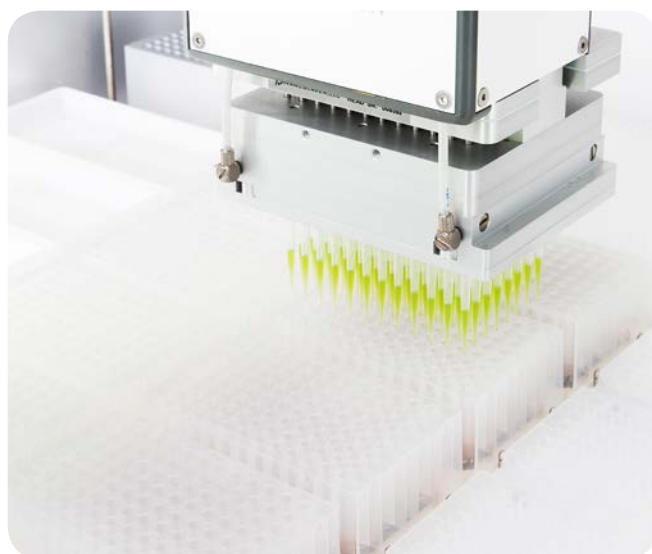
**Table 1: Genespin and Kleargene validated plant protocols**

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> )	✓	✓
Corn ( <i>Zea mays</i> )	✓	✓
Cowpea ( <i>Vigna unguiculata</i> )	✓	
Cucumber ( <i>Cucumis sativus</i> )	✓	✓
Lettuce ( <i>Lactuca sativa</i> )	✓	✓
Melon ( <i>Citrullus lanatus</i> )	✓	✓
Onion ( <i>Allium cepa</i> )	✓	

Plant species	Leaves	Seeds
Pepper ( <i>Capsicum annuum</i> )	✓	✓
Pigeon pea ( <i>Cajanus caja</i> )	✓	
Potato ( <i>Solanum tuberosum</i> )	✓	
Rice, Asian ( <i>Oryza sativa</i> )	✓	
Ryegrass ( <i>Lolium perenne</i> )	✓	
Sorghum ( <i>Panicum</i> )	✓	
Soybean ( <i>Aphis glycines</i> )	✓	✓
Sunflower ( <i>Helianthus annuus</i> )	✓	✓
Tomato ( <i>Solanum lycopersicum</i> )	✓	✓
Wheat ( <i>Triticum L.</i> )	✓	✓

### Ordering information

Cat. No.	Description
KBS-0010-001	96 Head Genespin high-throughput Kleargene prep robot
KBS-0010-002	384 Head Genespin high-throughput Kleargene prep robot
KBS-0900-023	Genespin 12 month on-site fully inclusive service contract



### Consumables

Cat. No.	Description
KBS-1012-201	Kleargene 1x96 spin plate plant kit
KBS-1012-202	Kleargene 4x96 spin plate plant kit
KBS-1012-204	Kleargene 1x384 spin plate plant kit
KBS-1012-205	Kleargene 4x384 spin plate plant kit
KBS-0006-009	repliKator™ K-wash, Wash buffer (1L bottle @ 1:100 concentrate)
KBS-0006-005	repliKator™ K-wash, Wash buffer (500ml bottle @ 1:100 concentrate)
KBS-0010-003	96-well non-sterile tip rack (pack of 10)
KBS-7001-052	0.2ml 96 Well storage plates (100 pack)
KBS-7001-130	1.2ml 96 Well storage plates (box of 50)
KBS-7001-131	0.8ml 96 Well storage plates (box of 50)

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