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Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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ZYMO RESEARCH

The Beauty of Science is to Make Things Simple

INSTRUCTION MANUAL

Quick-DNA™ Tissue/Insect 96 Kit

Catalog No. **D6017**

Highlights

- Simple, high-throughput (96-well) method for the isolation of DNA from fresh and frozen tissue, insect, and arthropod specimens in as little as 40 minutes.
- The procedure is ideal for processing small amounts of tissues, cultured cells, whole blood and organisms including mosquitoes, bees, lice, ticks, and *D. melanogaster*.
- State-of-the-art, ultra-high density ***BashingBeads™*** are fracture resistant and chemically inert.
- Omits the use of organic denaturants and proteinases.

Contents

ZYMO RESEARCH CORP.

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Satisfaction of all Zymo Research products is guaranteed. If you should be dissatisfied with this product, please call 1-888-882-9682.

Product Contents

***Quick*-DNA™ Tissue/Insect 96 Kit** (Kit Size)	**D6017** (2x96 preps.)	**Storage Temperature**
ZR BashingBead™ Lysis Rack (2.0 mm Beads)	2	Room Temp.
BashingBead™ Buffer	(2) 40 ml	Room Temp.
Genomic Lysis Buffer*	150 ml	Room Temp.
DNA Pre-Wash Buffer**	50 ml	Room Temp.
g-DNA Wash Buffer	100 ml	Room Temp.
DNA Elution Buffer	(2) 10 ml	Room Temp.
96-Well Block	2	Room Temp.
Silicon-A™ Plate	2	Room Temp.
Collection Plate	2	Room Temp.
Elution Plate	2	Room Temp.
Cover Foil	4	Room Temp.
Instruction Manual	1	-

Note **-** Integrity of kit components is guaranteed for up to one year from date of purchase. Reagents are routinely tested on a lot-to-lot basis to ensure they provide maximal performance and reliability.

* For optimal performance, add beta-mercaptoethanol to 0.5%(v/v) i.e., 750 µl per 150 ml.

** A precipitate may have formed in the DNA Pre-Wash Buffer during shipping. To completely resuspend the buffer, incubate the bottle at 30 – 37 ºC for 30 minutes and mix by inversion. DO NOT MICROWAVE.

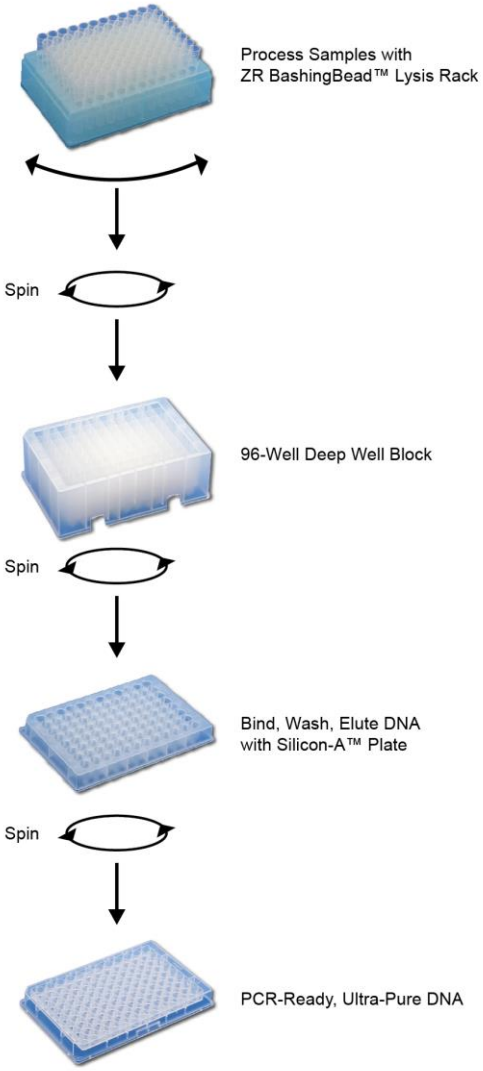
Specifications

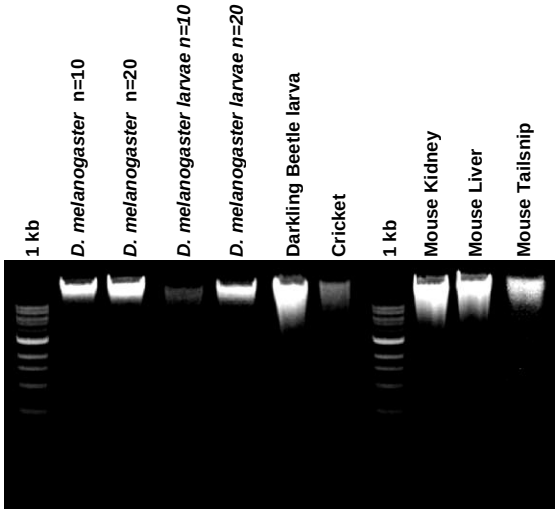
- **Format** – Bead Beating, 96-Well Plate Purification
- **Sample Sources** – Small amounts (n ≥1 and ≤10 mg) of fresh, frozen, or stored insects including: mosquitoes, bees, lice, ticks, *D. melanogaster*, etc. Also, compatible with fresh or frozen mammalian tissues (e.g., soft tissues like liver and brain) as well as cultured cells, and whole blood.
- **DNA Yield** – Expected yields can range from 1-5 µg DNA per mg specimen sampled. For mammalian tissues, yields are 1-3 µg DNA per mg of skeletal, heart and brain tissues and 3-5 µg DNA per mg of liver, kidney, and lung tissues. Whole blood will yield from 3-7 µg DNA per 100 µl.
- **DNA Purity** – High quality DNA is eluted with **DNA Elution Buffer** making it perfect for PCR. A_{260}/A_{280} >1.8
- **DNA Size Limits** – Capable of recovering genomic DNA up to and above 40 kb. In most instances, mitochondrial DNA and viral DNA (if present) will also be recovered.
- **DNA Recovery** – Typically, up to 5 µg total DNA is eluted into 100 µl (25 µl minimum) **DNA Elution Buffer** per sample.
- **Equipment** – Centrifuge w/ microplate carriers, 96-well plate/block disruptor or pulverizer

Note - ™ Trademarks of Zymo Research Corporation. This product is for research use only and should only be used by trained professionals. It is not intended for use in diagnostic procedures. Some reagents included with this kit are irritants. Wear protective gloves and eye protection. Follow the safety guidelines and rules enacted by your research institution or facility.

Product Description

The ***Quick*-DNA™ Tissue/Insect 96 Kit** is designed for the simple, rapid, and high-throughput (96-well) isolation of DNA (e.g., genomic, viral, mitochondrial) from small amounts of fresh and frozen tissue and insects including: mosquitoes, bees, lice, ticks, and *D. melanogaster*, etc. The procedure is easy and can be completed in as little as 40 minutes. Samples are added directly to the tubes of a **ZR BashingBead™ Lysis Rack (2.0 mm)** and rapidly and efficiently lysed by bead beating (e.g., 2010 GenoGrinder® Instrument, page 4) without using organic denaturants or proteinases. The DNA is isolated and purified using our Zymo-Spin™ Technology and is ideal for downstream molecular-based applications including PCR, array, genotyping, etc. PCR inhibitors are effectively removed during the purification process. A schematic of the ***Quick*-DNA™ Tissue/Insect 96 Kit** procedure is shown below.





Comparison of DNA yields from various insect and mouse samples using the ***Quick*-DNA™ Tissue/Insect Kit**. Various amounts of sample were processed with equal volumes of eluted DNA analyzed in a 0.8% (w/v) agarose/ethidium bromide gel. The 1 kb DNA size marker is from Zymo Research.

For **Technical Assistance**, please contact **Zymo Research's Technical Department** at 1-888-882-9682 or E-mail to tech@zymoresearch.com.

Protocol

For optimal performance, add beta-mercaptoethanol (user supplied) to the **Genomic Lysis Buffer** to a final dilution of 0.5%(v/v) i.e., 750 µl per 150 ml.

1. Add specimen(s) to the tubes of a **ZR BashingBead™ Lysis Rack (2.0 mm)**. Add 400 µl **BashingBead™ Buffer** to the tube. Cap tubes tightly to prevent leakage.

   Note: *Generally, no more than 10 mg tissue should be sampled, since larger samples will exceed the DNA binding capacity of the* ***Silicon-A™ Plate*** *(See* ***Specifications*** *on page 1). Up to 100 µl of whole blood or up to 1.7 x10^6 mammalian cells suspended in 100 µl PBS can also be sampled.*

2. Secure in a 96-well block/plate bead beater (e.g., 2010 GenoGrinder®) and process samples. Optimization of processing time/speed will be necessary for complete sample lysis.

   Note: *Processing times may be as little as one minute when using high-speed bead beaters (e.g., 2000 GenoGrinder®, page 4). See manufacturer's literature for specific operating information.*

3. Centrifuge the **ZR BashingBead™ Lysis Rack (2.0 mm)** at ≥ 3,000 x *g* (5,000 x *g* max.) for 5 minutes.

4. Transfer up to 250 µl supernatant to each well of a **96-Well Block.**

5. Add 750 µl of **Genomic Lysis Buffer** to the supernatant in the **96-Well Block** from Step 4. Cover completely with **Cover Foil** and mix thoroughly by vortexing block for 2 minutes. Centrifuge the **96-Well Block** at ≥ 3,000 x *g* (5,000 x *g* max.) for 5 minutes.

6. Remove or pierce foil and transfer 500 µl of each of the supernatants from Step 5 to the wells[1] of a **Silicon-A™ Plate** on a **Collection Plate**. Centrifuge the assembly at ≥ 3,000 x *g* (5,000 x *g* max.) for 5 minutes.

7. Discard the flow through from the **Collection Plate** and repeat Step 6.

8. Add 200 µl **DNA Pre-Wash Buffer** to the wells of the **Silicon-A™ Plate** on the emptied **Collection Plate** and centrifuge the assembly at ≥ 3,000 x *g* for 5 minutes.

9. Add 500 µl **g-DNA Wash Buffer** to the wells of the **Silicon-A™ Plate** on the **Collection Plate** and centrifuge the assembly at ≥ 3,000 x *g* for 5 minutes.

10. Transfer the **Silicon-A™ Plate** to an **Elution Plate** and add 100 µl (25 µl minimum) **DNA Elution Buffer** directly to the matrices in the plate. Centrifuge the assembly at ≥ 3,000 x *g* for 5 minutes.

    Eluted, ultra-pure DNA is now ready for use in your experiments, or the **Elution Plate** can be covered with **Cover Foil** for storage of the DNA.

[1]Be careful to avoid pipetting debris that can clog the wells of the **Silicon-A™ Plate**.

2010 GenoGrinder® is a registered trademark of Spex SamplePrep®, LLC

Ordering Information

Product Description	Format	Catalog No.	Kit Size
***Quick*-DNA™ Tissue/Insect Microprep Kit**	Spin Column	D6015	50 preps.
***Quick*-DNA™ Tissue/Insect 96 Kit**	96-Well	D6017	2x96 preps.

For Individual Sale	Catalog No.	Amount
Genomic Lysis Buffer	D3004-1-150	150 ml
BashingBead™ Buffer	D6001-3-40	40 ml
DNA Pre-Wash Buffer	D3004-5-50	50 ml
g-DNA Wash Buffer	D3004-2-100	100 ml
DNA Elution Buffer	D3004-4-10	10 ml
ZR BashingBead™ Lysis Rack (2.0 mm Beads)	S6002-96-2	1 Rack
96-Well Block	P1001-2	2 Blocks
Silicon-A™ Plate	C2001	2 Plates
Collection Plates	C2002	2 Plates
Elution Plate	C2003	2 Plates

The Ultimate Combination For High-Throughput Sample Lysis!

High-Throughput BashingBead™ Kits From Zymo Research & The 2010 GenoGrinder® Instrument From Spex SamplePrep

High-Throughput Lysis of Tough or Frozen Samples in Minutes!

Description	Cat. No.	Amount
2010 GenoGrinder® w/ 2 x 96-well block head adapter)	S6006	1 unit
Aluminum CryoBlock/48 x 2.0 ml Tube Adapter	S6006-1	1 pair

GenoGrinder and accessories for sale in USA only. Visit www.spexcsp.com for a distributor near you.