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MagSi-DNA Animal

Fast and cost-effective extraction of genomic DNA from animal samples

DNA Extraction from Animal Samples

MagSi-DNA Animal allows fast and cost-effective extraction of DNA from various samples like blood, semen, hairs, saliva/swabs or lysed tissue. This universal DNA purification kit is optimized to extract DNA from these sample materials with the highest purity and delivering DNA which is suitable for genotyping assays or other qPCR based analysis. The extraction chemistry is validated on different species, e.g. horse, swine, dog, cattle, fish and shrimp and can be customized to meet any specific requirements of yields, purity, working volumes. The kit can be used on KingFisher™ Flex or similar systems or on many other automated DNA purification instruments.

General Features

- Short protocols, complete processing at room temperature possible (after sample lysis)
- High DNA yield and purity
- Suitable for many genomic applications such as SNP genotyping, DNA sequencing, NGS
- Suitable for parental testing / breeding identity
- Preparation time 96 samples: 20 min after lysis

Quality

- Validated procedures for many sample materials (e.g., blood, semen, saliva, swabs (saliva/oral fluid), hair, lysed tissue)
- High molecular weight and pure DNA suitable for long-time storage
- Efficient removal of PCR inhibitors

Table 1. Results of typical DNA concentrations obtained from various sample materials. DNA purification was performed using a MagMax EXPRESS 96 magnetic bead processor

Sample	DNA concentration ¹ , ng/μL (Qubit)				
	Dog	Cat	Horse	Cattle	Swine
Blood, 20 μL	5.5	3.5	2.6	9.3	5
Semen, 30 μL	74	nt	170	26	11
Swab/Saliva ² , 100 μL	2.2	5.6	nt	nt	nt
Hair, 8 pcs	nt	nt	11.8	5.7	13.7
Tissue, 4 mm	nt	nt	nt	17.8	3.1

nt: not tested; ¹ 100 μL elution volume; ² from DNA Genotek PG 100 tubes

Ordering information

Art. No.	Description	Amount
MDKT00150096	MagSi-DNA Animal	96 preps
MDKT00150960	MagSi-DNA Animal	10 x 96 preps

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Aquaculture of fish or crustaceans

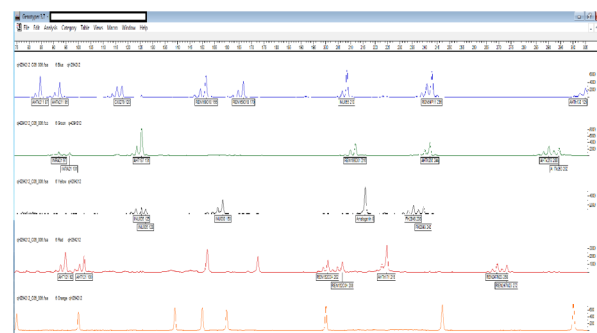


Figure 1. Example STR profile, DNA from 20 μL dog blood

Flexibility

- Suitable for processing various sample materials
- Suitable for small, medium and high-throughput automation | Small elution volumes

Easy to Automate

- Minimal accessory requirements
- KingFisher™ / Biosprint 96 protocols on request
- Consumables for KingFisher™ Flex 96 / MagMax EXPRESS 96 / Biosprint 96 available
- Compatible with liquid handling robots (e.g. Hamilton®, TECAN®, oKtopure™)
- Magnetic separators for microtubes and microplates available

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MagSi-DNA Animal

Fast and cost-effective extraction of genomic DNA from aquaculture samples



DNA Extraction from Aquaculture Samples

MagSi-DNA Animal allows for fast and cost-effective extraction of DNA from aquaculture samples. We demonstrated the extraction of DNA from shrimp samples for genomics-assisted breeding, from different species of fish fins for genetic testing by aquaculture laboratories, and from Atlantic mackerel for fisheries management. The kit is optimized to extract DNA from different types of aquaculture sample materials with the highest purity and delivering DNA which is suitable for genotypic assays or qPCR based analysis.

Features

- Short (and customizable) protocols, processing at room temperature (after sample lysis)
- Preparation time of 96 samples: 20 min after lysis
- High DNA yield, high molecular weight and excellent purity, suitable for long-time storage
- Suitable for many genomic applications such as SNP genotyping, NGS and qPCR
- Suitable for genomics-assisted breeding, genetic testing and fisheries management
- Can be used on PurePrep, KingFisher™ or other automated DNA purification instruments and compatible with various liquid handling robots (e.g. Hamilton®, TECAN®, oKtopure™)
- Magnetic separators available for manual procedure with microtubes and microplates
- Validated on various species: Atlantic mackerel, rainbow trout, Atlantic cod, Atlantic salmon, Japanese amberjack and black tiger shrimp (check our Application Notes)
- Suitable for processing various sample materials: fish fins, antenna's, pereopods (walking legs), pleopods (swimming legs), and uropods (tails)

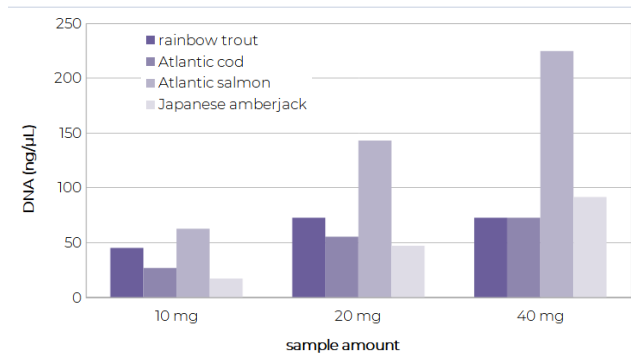
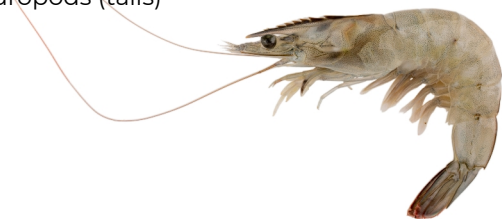


Figure 1. DNA concentrations obtained from fins of 4 different fish, measured with the Qubit™ dsDNA BR Assay Kit. The different input amounts (10, 20 and 40 mg) resulted in a DNA yield ranging from 16 to 225 ng/μL. The data presented are mean values (n= 8, ±1 SD). More info in Application Note AN0018.

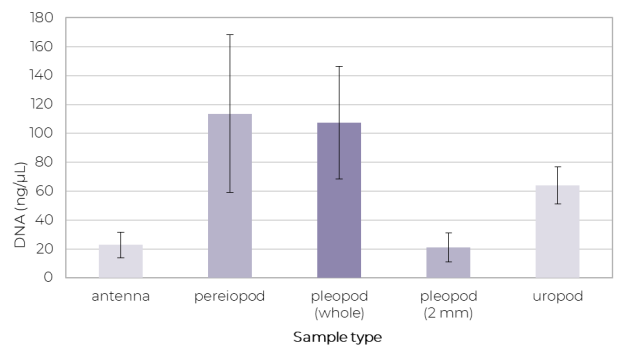


Figure 2. DNA concentrations obtained from different black tiger shrimp parts, measured with the Qubit™ dsDNA BR Assay Kit. The different shrimp parts resulted in a DNA yield ranging from 21 to 115 ng/μL. The data are presented as mean (n=8, ±1 SD). More info in Application Note AN0019.

Ordering information

Art. No.	Description	Amount
MDKT00150096	MagSi-DNA Animal	96 preps
MDKT00150960	MagSi-DNA Animal	10 x 96 preps
AS00001	PurePrep 96 Nucleic Acid Purification System	1 unit
MDPL00200050	2 mL Deepwell Plate with square wells for KingFisher™/PurePrep 96	50 pcs/pack
MDPL00190060	200 μL square-well Elution Plate for KingFisher™/PurePrep 96	60 pcs/pack
MDPL00210060	96 well Tip-Comb for KingFisher™/PurePrep 96	60 pcs/pack

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