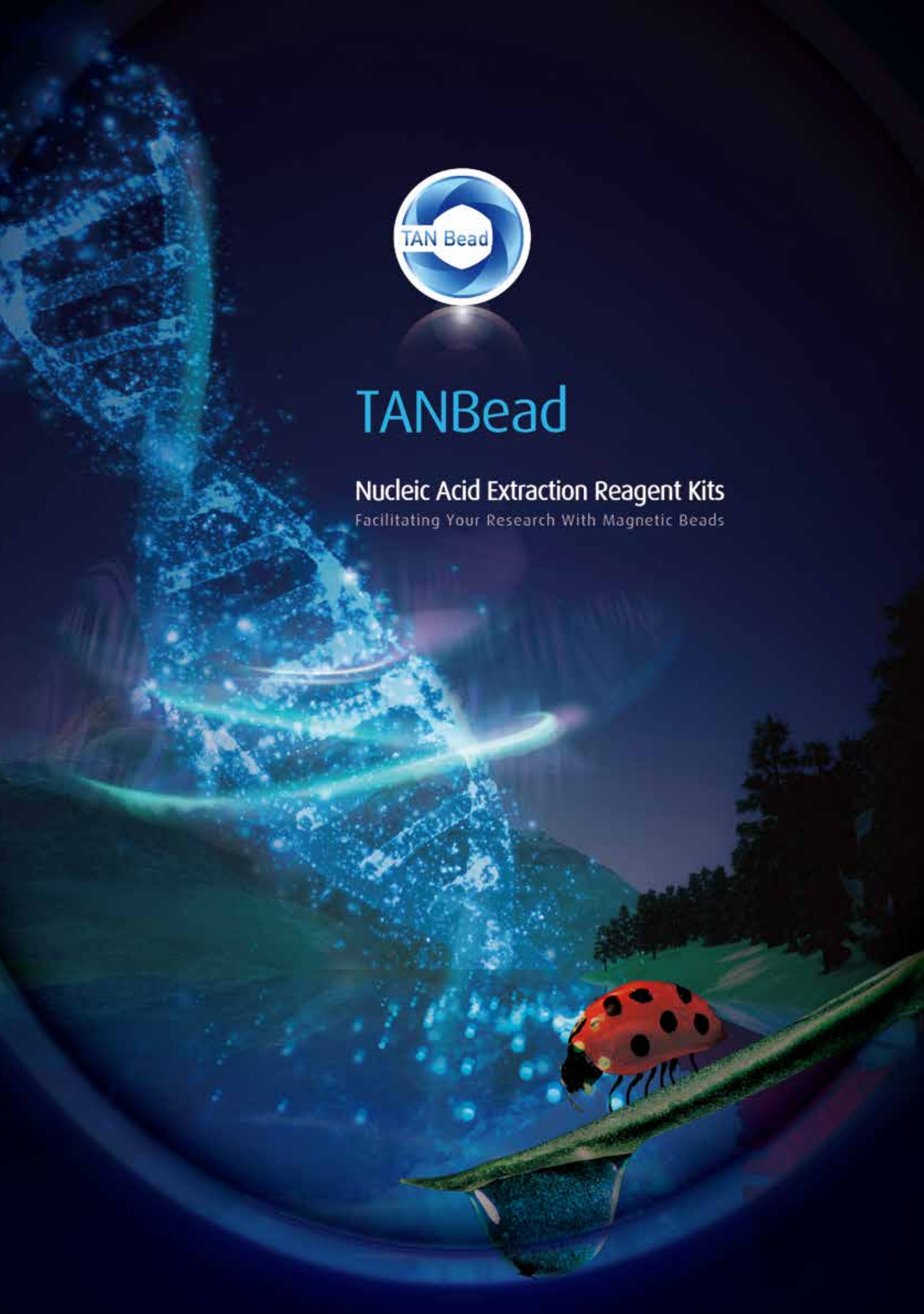


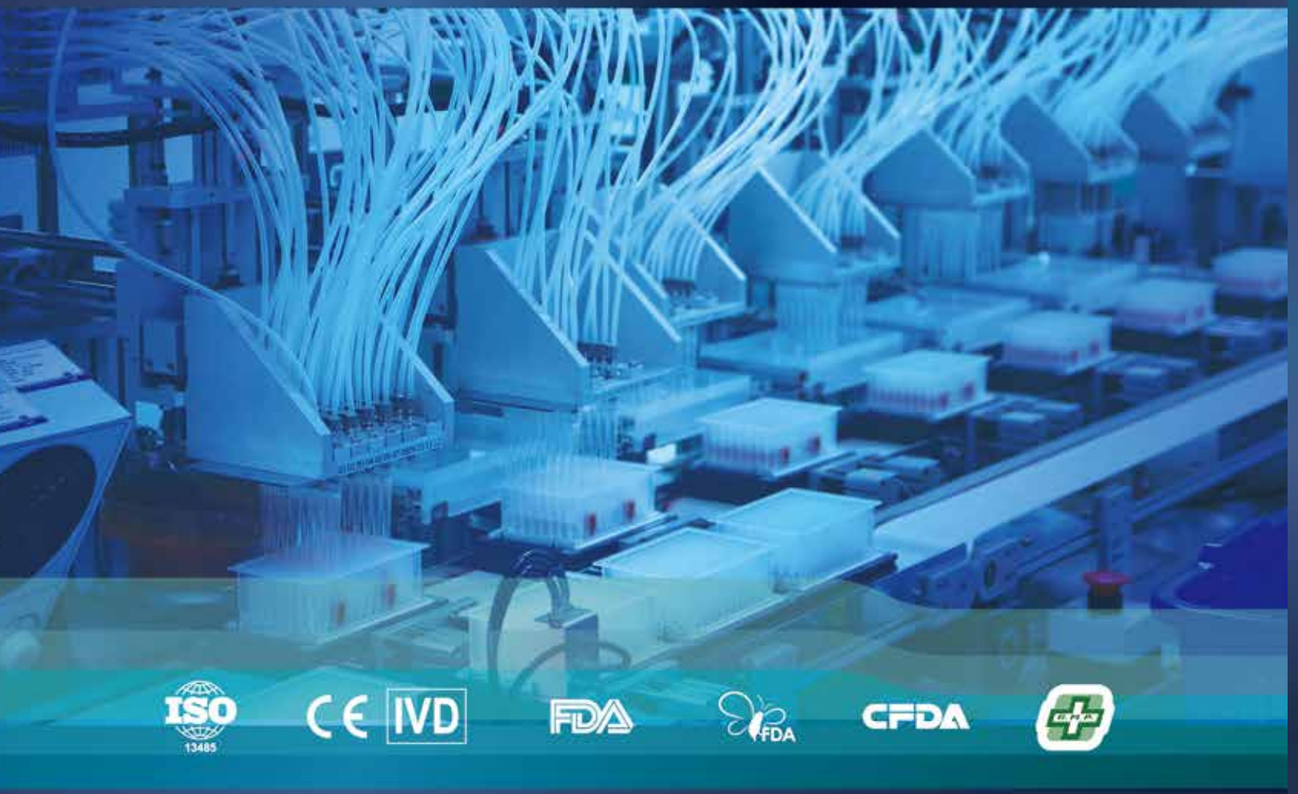
TANBead

Nucleic Acid Extraction Reagent Kits

Facilitating Your Research With Magnetic Beads

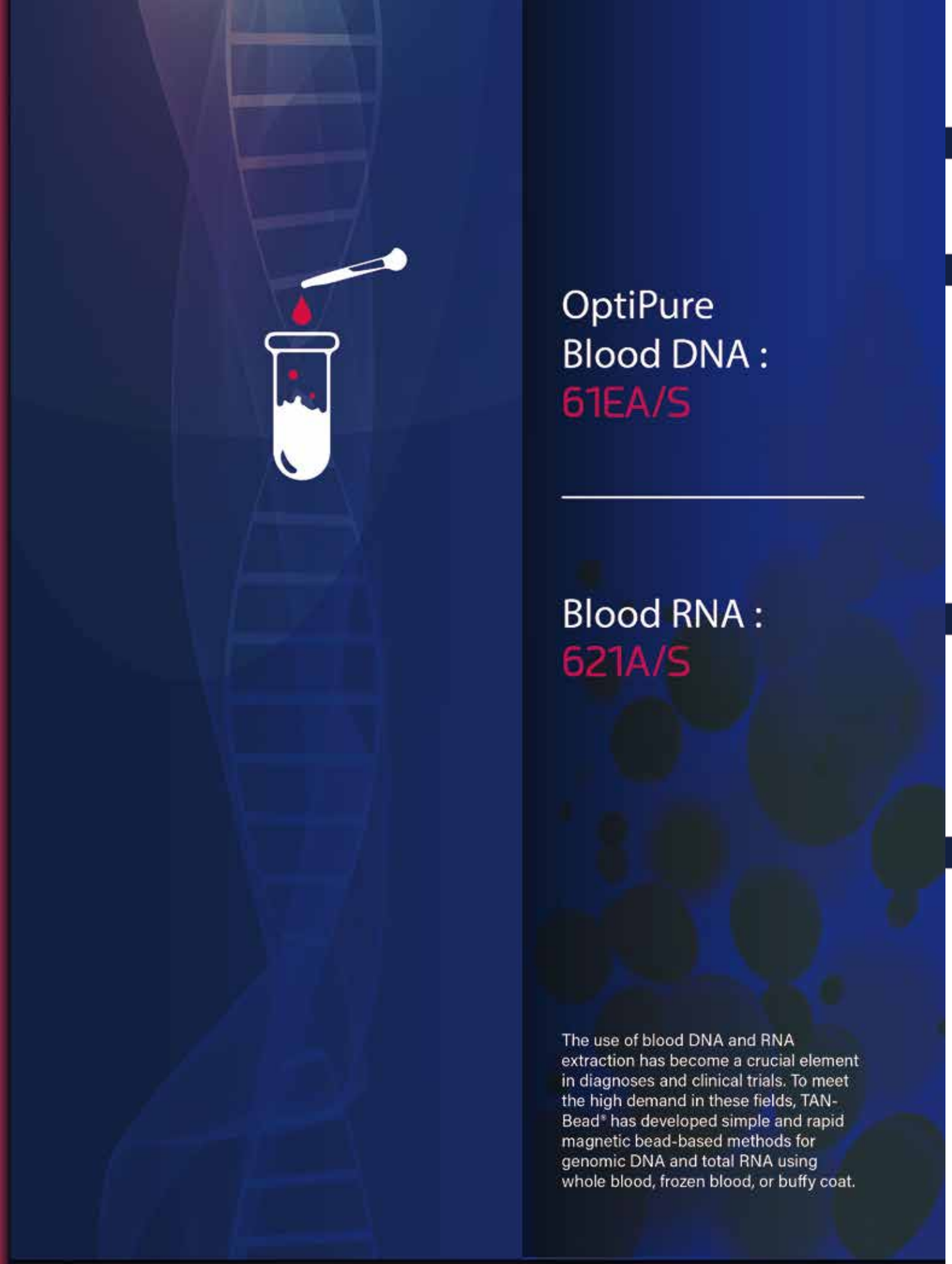
ABOUT TANBead

The Nucleic Acid Extraction Experts



ISO 13485 CE IVD FDA FDA CFDA GMP

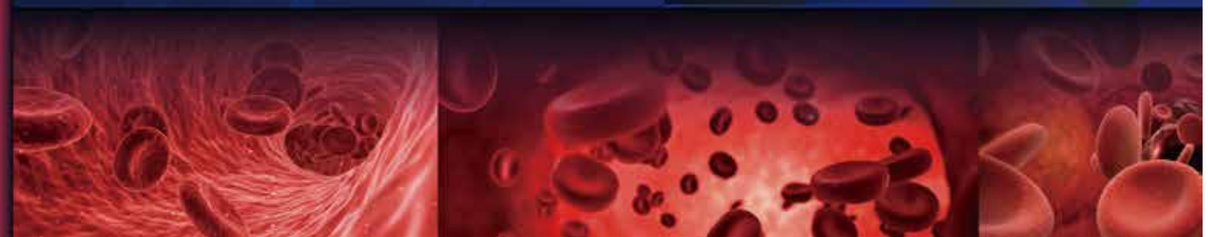
INDEX



OptiPure Blood DNA : 61EA/S

Blood RNA : 621A/S

The use of blood DNA and RNA extraction has become a crucial element in diagnoses and clinical trials. To meet the high demand in these fields, TANBead® has developed simple and rapid magnetic bead-based methods for genomic DNA and total RNA using whole blood, frozen blood, or buffy coat.

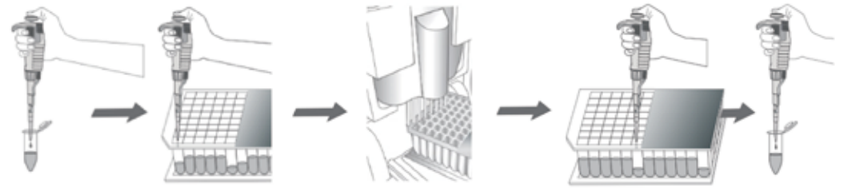


Application

Genomic DNA can be purified from diverse blood samples, including whole blood, frozen blood and buffy coat.

How it works

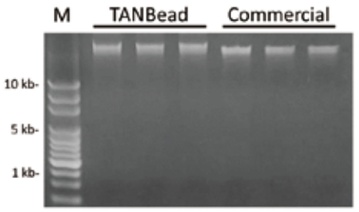
The blood samples can be directly applied to TANBead OptiPure Blood DNA Extraction Kit with proteinase K. The nucleic acid extraction can be processed using an Automated Nucleic Acid Extractor (Maelstrom series). During the process, the silicon dioxide layer coated to the magnetic beads adsorbs and purifies nucleic acids from the samples. When the program ends, aliquot the purified nucleic acid into a clean tube.



Specification

Features	Specification
Sample type	Whole blood/ Frozen blood/ Buffy coat
Purified nucleic acid	Genomic DNA
Sample amount	300 µl whole blood/ Frozen blood/ Buffy coat
Processing time	30-40 minutes
Typical yield	2-5 µg

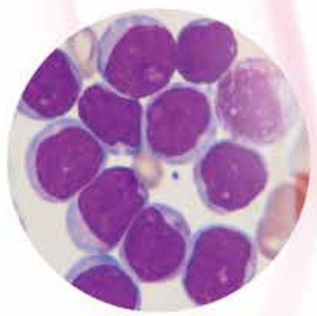
Data

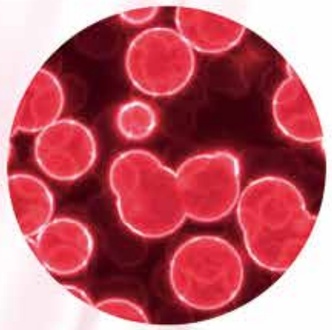


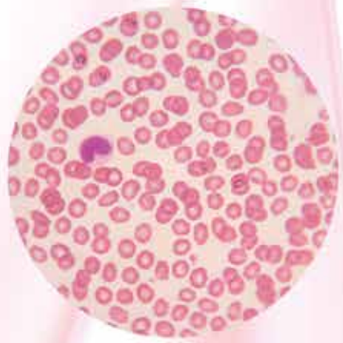
	Conc. (ng/µl)	260/280	260/230
TANBead M61EA46	48.5	1.83	1.38
	50.2	1.85	1.29
	45.1	1.82	1.34
Commercial Spin column	22.1	1.93	0.88
	15.2	2.11	1.21
	18.4	1.89	1.33

The results of agarose gel electrophoresis (1% agarose) and a NanoDrop 2000 reveal that the purity, quality, and concentration of the nucleic acids extracted by OptiPure Blood DNA Extraction Kit are superior to those extracted by spin-column systems and the phenomena of RNA contamination is less common than other commercial methods.

Instrument	TANBead OptiPure Blood DNA Auto Plate	TANBead OptiPure Blood DNA Auto Tube
Maelstrom 8	REF: M61EA46; 96 preps	REF: M61ES46; 96 preps
Maelstrom 4800	REF: M61EA46; 96 preps	REF: M61ES46; 96 preps
Maelstrom 9600	REF: W61EA46; 96 preps	REF: W61ES66; 72 preps





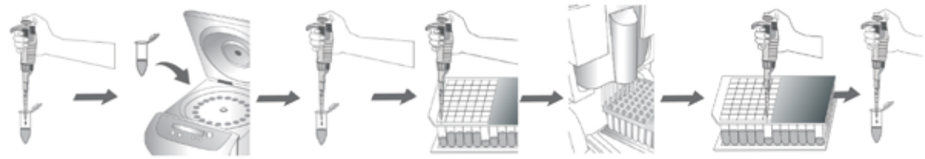


Application

Total RNA can be purified from fresh blood samples.

How it works

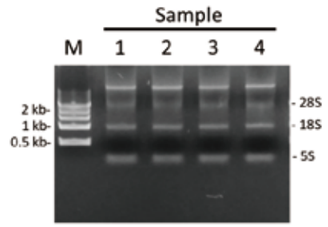
First, the fresh blood specimens are mixed with Lysis Buffer and incubated at RT for 10 minutes. Second, acidic phenol and BCP are applied and mixed into specimens sequentially. Third, centrifuge the specimens and collect the upper aqueous phase as samples, then mix with IPA. Last, the neucleic acid extraction can be processed using our Automated Nucleic Acid Extractor (Maelstrom series). During the process, the silicon dioxide layer coated to the magnetic beads adsorbs and purifies nucleic acids from the samples. When the program ends, collect the purified nucleic acid in a clean tube.



Specification

Features	Specification
Sample type	Fresh whole blood
Purified nucleic acid	Total RNA
Sample amount	200 µl fresh whole blood
Processing time	30-40 minutes
Typical yield	2-5 µg

Data



	Conc. (ng/µl)	260/280
Sample 1	19.4	2.15
Sample 2	19.3	2.18
Sample 3	19.4	2.12
Sample 4	20.0	2.05

Agaroses gel electrophoresis (1.2% agarose) reveals the 5S, 18S, 28S RNA are efficiently extracted by the Blood RNA Nucleic Acid Extraction Kit. The purity and density of RNA was assessed by a NanoDrop 2000 and was found to have an optical density of 260/280 >2.

Instrument	TANBead Blood RNA Auto Plate	TANBead Blood RNA Auto Tube
Maelstrom 8	REF: M621A46; 96 preps	REF: M621S46; 96 preps
Maelstrom 4800	REF: M621A46; 96 preps	REF: M621S46; 96 preps
Maelstrom 9600	REF: W621A46; 96 preps	REF: W621S66; 72 preps

cfDNA:
61CA/S

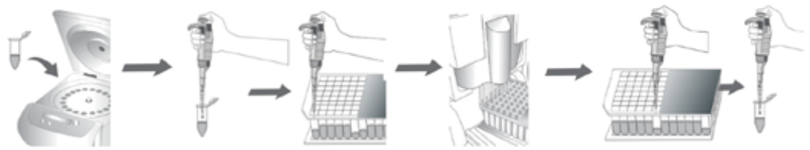
Circulating free DNA or cell-free DNA (cfDNA) have become an important source of information for cancer screening, and non-invasive prenatal testing (NIPT). The demands for standardized and efficient methods of preparing cfDNA continue to grow. The TANBead® cfDNA Nucleic Acid Extraction Kit is able to extract cfDNA from plasma for downstream applications such as sequencing or qPCR.

Application

Purified cell-free DNA from plasma/ serum/ body fluid

How it works

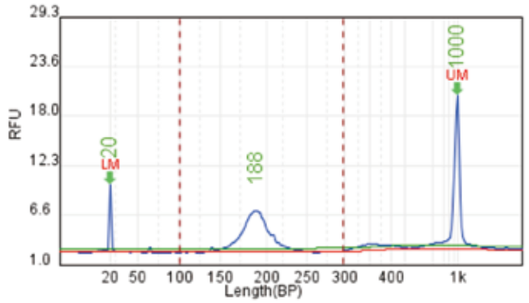
Plasma needs to be sampled in Blood Collection Tube and centrifuged at 16000 g for 5 minutes. Transfer the supernatant to column #1 and add Proteinase K. Extract the nucleic acid with an Automatic Nucleic Acid Extractor (Maelstrom series). During the process, the silicon dioxide layer coated to the magnetic beads adsorbs and purifies nucleic acids from sample. When the program ends, transfer the purified nucleic acid into a clean tube.



Specification

Features	Specification
Sample type	Plasma/ Serum/ Body fluid
Purified nucleic acid	Cell free DNA (100-300 bp)
Sample amount	1200 µl
Processing time	40-50 minutes
Typical yield	Varies in donor-to-donor and health status

Data



Cell-free DNA (cfDNA) was isolated from 1200 µl plasma from a healthy human. The eluted cfDNA was analyzed by Qsep 100 and Qubit Fluorometer. With a good representation of fragment size between 100-300 bp, the distribution of this fragment was above 70%, and lower cellular DNA yields. The Qubit concentraction was 0.187 ng/µl.

Instrument	TANBead Tissue Total DNA Auto Plate	TANBead Tissue Total DNA Auto Tube
Maelstrom 8	REF: M61CA46; 96 preps	REF: M61CS46; 96 preps
Maelstrom 4800	REF: M61CA46; 96 preps	REF: M61CS46; 96 preps
Maelstrom 9600	REF: W61CA46; 96 preps	REF: W61CS66; 72 preps

Animal Tissue DNA: 612A/S

Animal Tissue Total DNA: 6T2A/S

Total Tissue RNA: 6K2-PR A/S

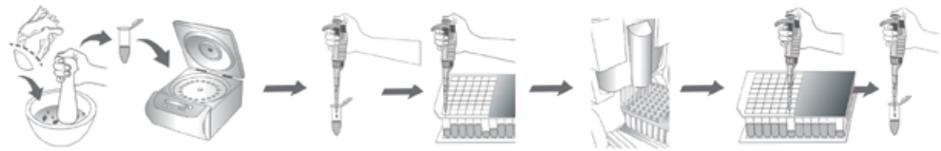
The TANBead® Animal Tissue DNA/RNA extraction kits are engineered to recover high-quality genomic DNA, total DNA, total RNA, or total nucleic acid from either whole cells or solid tissue.

Application

Purified genomic DNA from diverse animal tissues and cells

How it works

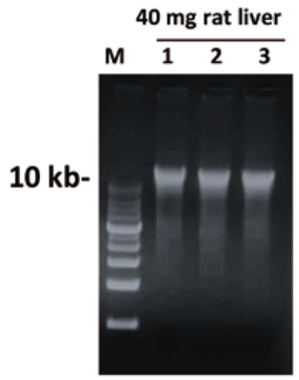
Grind the animal tissue with liquid nitrogen followed by mixing with Lysis Buffer. Incubate at RT for 10 minutes. After centrifuging, transfer the supernatant to column #1. Extract the nucleic acid with an Automated Nucleic Acid Extractor (Maelstrom series). During the process, the silicon dioxide layer coating the magnetic beads can adsorb and purify nucleic acids from the samples. When the program ends, transfer the purified nucleic acid into a clean tube.



Specification

Features	Specification
Sample type	Animal tissue/ Cultured Cells
Purified nucleic acid	Genomic DNA (larger than 10 kb)
Sample amount	20-50 mg / ≤2 x 10^6 cells
Processing time	40-50 minutes
Typical yield	2-10 µg

Data



gDNA was isolated from 40 mg of rat liver tissue. An 8 µl aliquot of the eluate was loaded on 1 % TAE gel. The eluted DNA was of high integrity with a molecular weight of >10 kb, and the ratio of 260/280 was between 1.7-2.0.

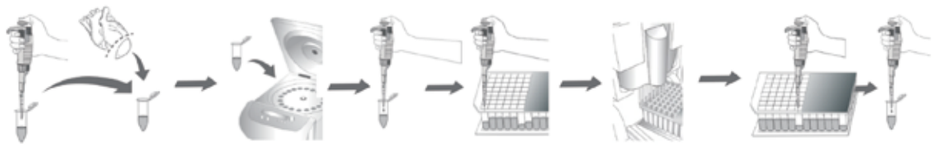
Instrument	TANBead Tissue DNA Auto Plate	TANBead Tissue DNA Auto Tube
Maelstrom 8	REF: M612A46; 96 preps	REF: M612S46; 96 preps
Maelstrom 4800	REF: M612A46; 96 preps	REF: M612S46; 96 preps
Maelstrom 9600	REF: W612A46; 96 preps	REF: W612S66; 72 preps

Application

Purified total DNA from diverse animal tissues

How it works

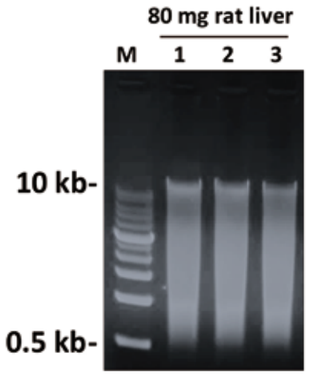
Animal tissues are pre-lysed with proteinase K and Incubation Buffer at 56˚C for 30-60 minutes or until completely lysed. After centrifuged, transfer the supernatant to column #1. Extract the nucleic acid with Automatic Nucleic Acid Extractor (Maelstrom series). During the process, the magnetic beads with silicon dioxide coating adsorbs and purifies nucleic acids from the samples. When the program ends, transfer the purified nucleic acid into a clean tube.



Specification

Features	Specification
Sample type	Animal tissue
Purified nucleic acid	Total DNA (down to 0.5 kb)
Sample amount	50-100 mg
Processing time	60-70 minutes
Typical yield	5-40 µg

Data



Total DNA was isolated from 80 mg of rat liver tissue. An 8 µl aliquot of the eluate was loaded on 1 % TAE gel. The gel pattern of isolated target DNA was distributed from 0.5 kb to 10 kb above, which is one of features of 6T2 kit. The yield of nucleic acid was approximately 20 µg from 80 mg of rat liver tissue and the ratio of 260/280 was between 1.7-2.0.

Instrument	TANBead Tissue Total DNA Auto Plate	TANBead Tissue Total DNA Auto Tube
Maelstrom 8	REF: M6T2A46; 96 preps	REF: M6T2S46; 96 preps
Maelstrom 4800	REF: M6T2A46; 96 preps	REF: M6T2S46; 96 preps
Maelstrom 9600	REF: W6T2A46; 96 preps	REF: W6T2S66; 72 preps

Application

Purified total RNA from diverse animal tissues and cells.

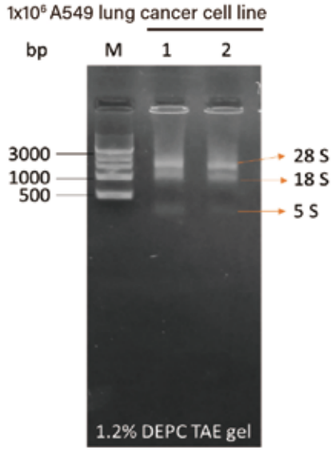
How it works

Animal tissues need to be ground with liquid nitrogen. Transfer the powder to the container and incubate on ice for 10 - 30 minutes when the tissue becomes a fine powder. After centrifuged, load lysate and DNase I into column #3. Once the program paused, Buffer into column #3. Extract the nucleic acid of the samples with the Automatic Nucleic Acid Extractor (Maelstrom series). The silicon dioxide layer coated to the magnetic beads can adsorb and purify nucleic acids from sample. The program will pause in order for you to add buffer into column #3. When the program ends, collect out the purified nucleic acid in a clean tube.

Specification

Features	Specification
Sample type	Animal tissue/ Cultured Cells
Purified nucleic acid	Total RNA
Sample amount	30-100 mg tissue/ $1x10^5$-$1x10^7$ cells
Processing time	60-70 minutes
Typical yield	2-10 µg

Data



Total RNA was isolated from 1×10⁶ A549 lung cancer cell line. A 5 µl aliquot from eluate was analyzed by electrophoresis on a 1.2% DEPC TAE gel.
M: 1Kb DNA Marker

Sample	Conc.(ng/µl)	260/280	260/230	Yield(µg)
1	172.0	2.0	2.1	12.0
2	169.8	2.0	2.1	11.9

The quantification data was analyzed by NanoDrop 2000c Spectrophotometer.

Instrument	TANBead Tissue Total DNA Auto Plate	TANBead Tissue Total DNA Auto Tube
Maelstrom 8	REF: M6K2A46-PR; 96 preps	REF: M6K2S46-PR; 96 preps
Maelstrom 4800	REF: M6K2A46-PR; 96 preps	REF: M6K2S46-PR; 96 preps
Maelstrom 9600	REF: W6K2A46-PR; 96 preps	REF: W6K2S66-PR; 72 preps

Plant Tissue Total DNA : 613A/S

Plant Tissue Total RNA : 6K3-PR A/S

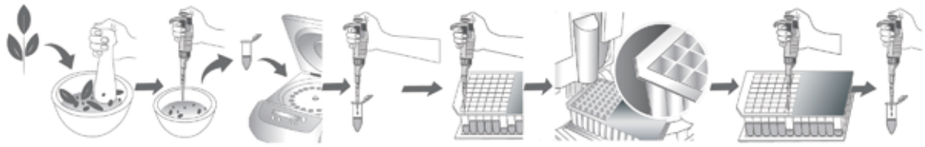
The TANBead® Plant DNA and RNA kits have been specifically designed for use with a wide variety of plant materials. The magnetic beads-based method enables the rapid extraction of genomic DNA, total RNA, or total nucleic acid in a quick and simple method.

Application

Purified Genomic DNA from diverse plant tissues.

How it works

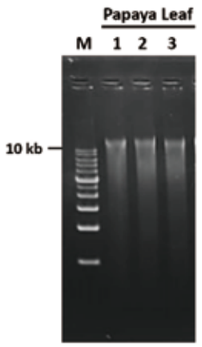
Grind the plant leaf tissue (for example, Golden Pothos, Epipremnum aureum or papaya leaf) with liquid nitrogen (50-100 mg) followed by mixing the sample with Lysis Buffer. Incubate at RT for 10 minutes, then centrifuge for 5 minutes to remove plant tissue debris. Take out Lysate and load into column #1. Extract the nucleic acid of the samples with an Automated Nucleic Acid Extractor (Maelstrom series). During the process, the silicon dioxide layer coated on the magnetic beads can adsorb nucleic acid from samples, remove contaminants with Wash Buffer and elute purified genomic DNA by Elution Buffer. When the program ends, collect nucleic acid from column #6 into a clean tube.



Specification

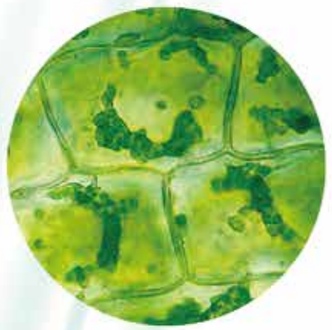
Feature	Specification
Sample type	Plant tissue
Purified nucleic acid	Genomic DNA
Sample amount	50-100 mg
Processing time	60-70 minutes
Typical yield	2-5 µg

Data



Genomic DNA was isolated from 80 mg of papaya plant tissues. A 10 µl aliquot from eluate was analyzed by electrophoresis on a 1% TAE gel. The extracted genomic DNA of the samples on the gel display high molecular weight (>10k bp), yield of 2-5 µg and high purity (260/280=1.8-2.0, 260/230 > 1.7).

Instrument	TANBead Plant DNA Auto Plate	TANBead Plant DNA Auto Tube
Maelstrom 8	REF: M613A46 ： 96 preps	REF: M613S46 ： 96 preps
Maelstrom 4800	REF: M613A46 ： 96 preps	REF: M613S46 ： 96 preps
Maelstrom 9600	REF: W613A46 ： 96 preps	REF: W613S66 ： 72 preps

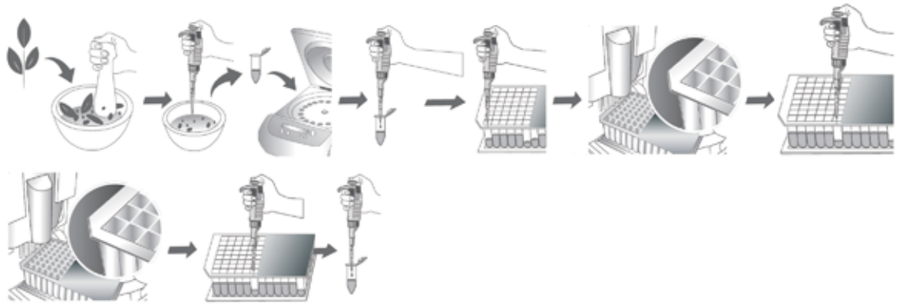


Application

Purified total RNA from diverse plant tissues.

How it works

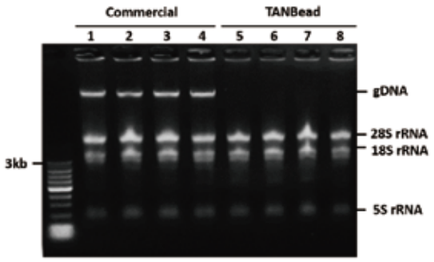
Grind the plant leaf tissue (for example, Golden Pothos, Epipremnum aureum and papaya leaf) with liquid nitrogen (50-100 mg) followed by mixing the sample with Lysis Buffer. Incubate at RT for 10 minutes and centrifuge for 5 minutes to remove the plant tissue debris. Take out Lysate and load into column #1. Load DNase I into column #2. Extract the nucleic acid of the samples with Automated Nucleic Acid Extractor. During the process, the silicon dioxide layer coated on the magnetic beads will adsorb nucleic acid from the samples. In the middle of the run, add more Wash Buffer to remove the contaminants and elute purified genomic DNA with Elution Buffer. When the program ends, collect nucleic acid from column #6 into a clean tube.



Specification

Feature	Specification
Sample type	Plant tissue
Purified nucleic acid	Total RNA
Sample amount	50-100 mg
Processing time	60-70 minutes
Typical yield	2-15 μg

Data



RNA was isolated from 100 mg of papaya plant tissues. A 10 μl aliquot from eluate was analyzed by electrophoresis on a 1.2% DEPC-TAE gel. Compared with the Lane 1-4 (Commercial), the extracted RNA of the samples in Lane 5-8 (TANBead) on the gel displays a yield of 2-5 μg, no contamination of genomic DNA and high purity (260/280=1.8-2.0, 260/230 > 1.7) with 28S, 18S, and 5S rRNA.

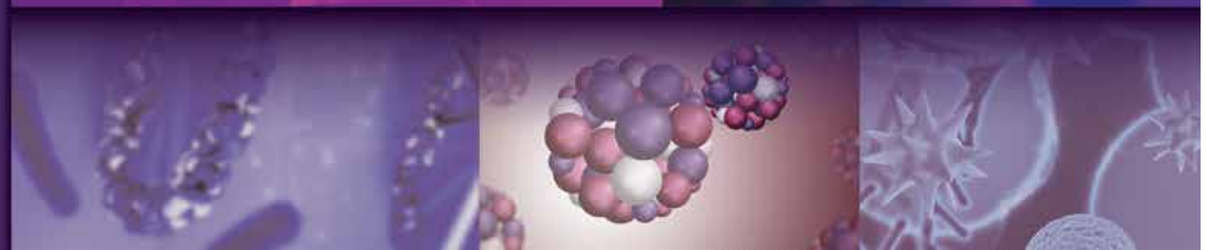
Instrument	TANBead Plant RNA Auto Plate	TANBead Plant RNA Auto Tube
Maelstrom 8	REF: M6K3A46-PR ： 96 preps	REF: M6K3S46-PR ： 96 preps
Maelstrom 4800	REF: M6K3A46-PR ： 96 preps	REF: M6K3S46-PR ： 96 preps
Maelstrom 9600	REF: W6K3A46-PR ： 96 preps	REF: W6K3S66-PR ： 72 preps

HBV Nucleic Acid: 615A/S

Viral Nucleic Acid: 635A/S

OptiPure Viral Nucleic Acid: 665A/S

The advancement of infectious disease research is highly dependent on efficient DNA/RNA extraction for downstream applications such as genetic sequencing and PCR. The TANBead® Virus Nucleic Acid Extraction Kits provide an effective way to isolate viral DNA and viral RNA.

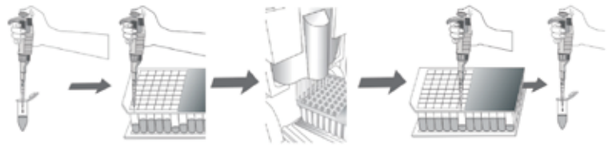


Application

Purify viral DNA/ RNA from serum or PBS suspension effectively.

How it works

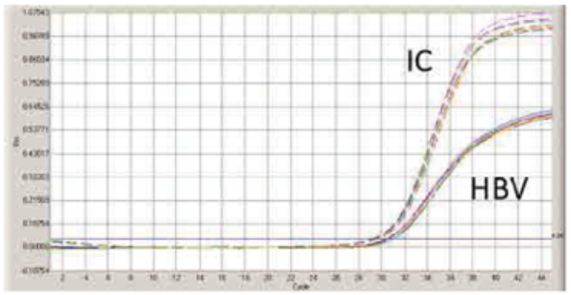
Add 200 µl/ 300 µl of serum/PBS suspension and 10 µl proteinase K to column #1. Insert the kit into the Automated Nucleic Acid Extractor (Maelstrom series). During this process, the silicon dioxide layer coating on the magnetic beads adsorbs and purifies nucleic acids from your samples. When the program ends, transfer the purified nucleic acid to a clean tube.
During the process, the silicon dioxide layer coated to the magnetic beads can adsorb and purify nucleic acids from the samples. When the program ends, aliquot the purified nucleic acid to a clean tube.



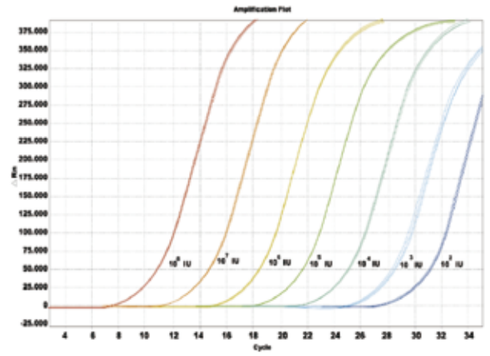
Specification

Features	Specification
Sample type	Intestinal virus/ Japanese encephalitis virus/ Dengue virus/ Avian influenza virus/ EB virus/ Hepatitis B Virus/ Hepatitis C virus/ Influenza virus/ Respiratory syncytial virus/ Other viral DNA and RNA.
Purified nucleic acid	Viral DNA/ RNA
Sample amount	200 µl/ 300 µl serum, PBS suspension
Processing time	25-70 minutes

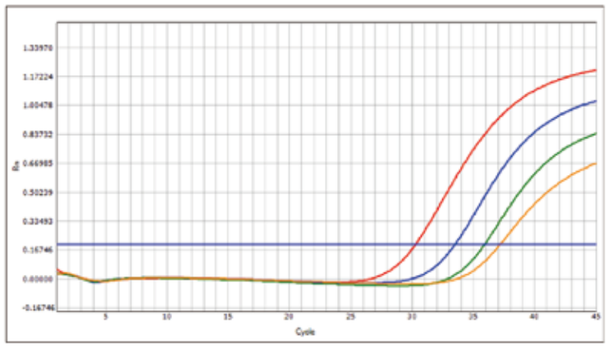
Data



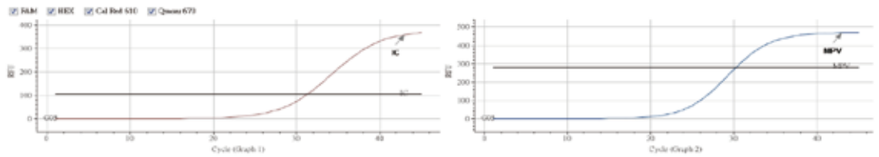
HBV detection by Real-Time PCR. HBV nucleic acid were extracted by 10 different batches of TANBead Nucleic Acid Extraction Kit REF#615A/S. It shows stability of product quality.



HBV detection by Real-Time PCR. HBV nucleic acid were extracted by 10 different batches of TANBead Nucleic Acid Extraction Kit REF#615A/S. It shows stability of product quality.



Real-Time PCR results show linear performance across a wide concentration range (10^2 IU/ml-10^8 IU/ml).



Sample No	Patient Id	Well	Name	Type	FAM				HEX				Cal Red 610				Quasar 670		Quasar 670		Auto Interpretation
					PIV4	C(t)	MPV	C(t)	PIV2	C(t)	PIV1	C(t)	AdV	C(t)	HEV	C(t)	PIV3	C(t)	IC	C(t)	
		G05		SAMPLE	-	N/A	+	30.27	-	N/A	-	N/A	-	N/A	-	N/A	-	N/A	+	31.35	MPV

TANBead Nucleic Acid Extraction Kit REF#665A/S extract respiratory virus rapidly, and the extracted virus nucleic acid can be detected with real-time PCR accurately.

Instrument	TANBead HBV Auto Plate	TANBead HBV Auto Tube
Maelstrom 8	REF: M615A46; 96 preps	REF: M615S46; 96 preps
Maelstrom 4800	REF: M615A46; 96 preps	REF: M615S46; 96 preps
Maelstrom 9600	REF: W615A46; 96 preps	REF: W615S66; 72 preps

Instrument	TANBead Viral Auto Plate	TANBead Viral Auto Tube
Maelstrom 8	REF: M635A46; 96 preps	REF: M635S46; 96 preps
Maelstrom 4800	REF: M635A46; 96 preps	REF: M635S46; 96 preps
Maelstrom 9600	REF: W635A46; 96 preps	REF: W635S66; 72 preps

Instrument	TANBead OptiPure Viral Auto Plate	TANBead OptiPure Viral Auto Tube
Maelstrom 8	REF: M665A46; 96 preps	REF: M665S46; 96 preps
Maelstrom 4800	REF: M665A46; 96 preps	REF: M665S46; 96 preps
Maelstrom 9600	REF: W665A46; 96 preps	REF: W665S66; 72 preps

References
1. Baron, S. et al. No Evidence of Significant Levels of Toxigenic V. cholerae O1 in the Haitian Aquatic Environment During the 2012 Rainy Season. PLoS Currents (2013). doi:10.1371/currents.outbreaks.7735b392bdcb749baf5812d2096d331e
2. Huh, H. J. et al. Performance Evaluation of Allplex Respiratory Panels 1, 2, and 3 for Detection of Respiratory Viruses and Influenza A Virus Subtypes. Journal of Clinical Microbiology 55, 479–484 (2017).
3. Li, S. et al. Duck Tembusu virus exhibits neurovirulence in BALB/c mice. Virology Journal 10, 260 (2013).
4. Tsai, J.-J., Lin, P.-C., Tsai, C.-Y., Wang, Y.-H. & Liu, L.-T. Low frequency of asymptomatic dengue virus-infected donors in blood donor centers during the largest dengue outbreak in Taiwan. Plos One 13, (2018).
5. Yang, J.-R. et al. Newly Emerging Mutations in the Matrix Genes of the Human Influenza A(H1N1)pdm09 and A(H3N2) Viruses Reduce the Detection Sensitivity of Real-Time Reverse Transcription-PCR. Journal of Clinical Microbiology 52, 76–82 (2014).

Bacteria DNA: 61GA/S

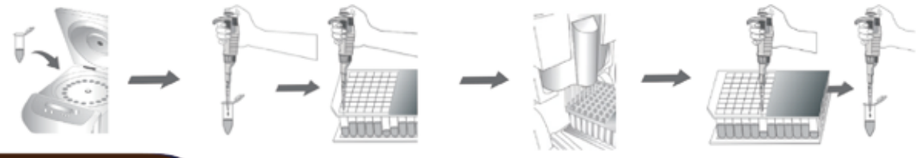
The TANBead® Bacteria Nucleic Acid Extraction Kit is optimized to purify genomic DNA from Gram-positive bacteria and Gram-negative bacteria such as E. coli, Bacillus, Microbacterium, Lactobacillus, Weissella, Burkholderia etc.. This robust kit has been verified on a variety of species and produces high molecular weight genomic DNA for downstream applications such as PCR, qPCR, Southern blotting, sequencing or cloning.

Application

Purified genomic DNA from diverse Gram-negative or Gram-positive bacteria

How it works

Harvest the bacterial cells by high-speed centrifugation. The bacterial cells are pre-lysed at 56°C for 30-60 minutes in the presence of lysozyme and proteinase K. After lysing efficiently, the lysates are transferred to column #1. Extract the nucleic acid with our Automated Nucleic Acid Extractor (Maelstrom series). During the process, the silicon dioxide layer coated to the magnetic beads will adsorb and purify nucleic acids from the samples. When the program ends, transfer the purified nucleic acid into a clean tube.

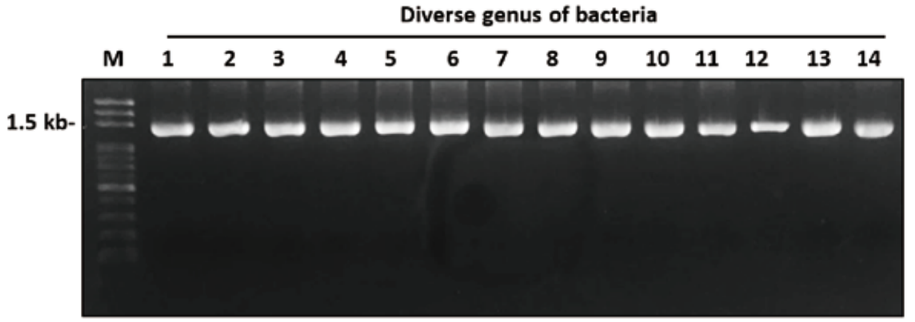


Specification

Feature	Specification
Sample type	Cultured Bacteria
Purified nucleic acid	Genomic DNA
Sample amount	≤3 x10^8 cells
Processing time	40-60 minutes
Typical yield	1-20 µg

Data

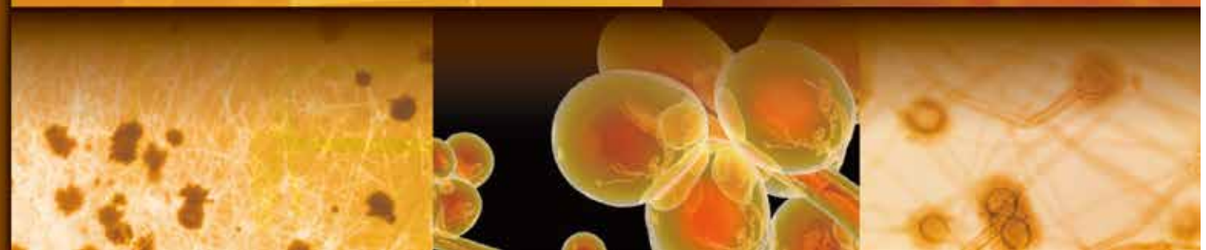
Nucleic acids were extracted from 14 different genus of bacteria (Lane 1-14 were corresponded to the following, *Bacillus, Microbacterium, Massilia, Paenibacillus, Corynebacterium, Escherichia, Novosphingomonas, Cupriavidus, Duganella, Flavobacterium, Lactobacillus, Weissella, Leuconostoc* and *Burkholderia*), including Gram positive and negative bacteria. After isolation of nucleic acids, 16S ribosomal RNA genes were amplified by PCR and analyzed through agarose gel electrophoresis. A 1.4 kb of amplicons from all samples were apparent on agarose gel.



Instrument	TANBead Gram Bacteria DNA Auto Plate	TANBead Gram Bacteria DNA Auto Tube
Maelstrom 8	REF: M61GA46; 96 preps	REF: M61GS46; 96 preps
Maelstrom 4800	REF: M61GA46; 96 preps	REF: M61GS46; 96 preps
Maelstrom 9600	REF: W61GA46; 96 preps	REF: W61GS66; 72 preps

Fungi DNA:
61FA/S

The TANBead® Fungi Nucleic Acid Extraction Kit is a fast and flexible solution for DNA isolation. After pre-treatment with bead grinding, this kit isolates genomic DNA of a wide variety of fungi strains and pathogens.

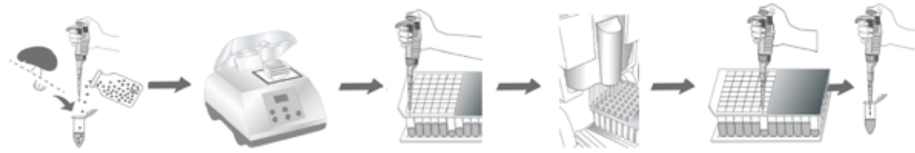


Application

Purified genomic DNA from fungi.

How it works

Fungi need to be ground with 1-2 mm steel balls and lysis buffer in the tube by bead homogenizer equipment and incubated at RT for 10 minutes. The lysate can be directly processed by the Automated Nucleic Acid Extractor (Maelstrom series). The silicon dioxide layer coated to the magnetic beads adsorbs and purifies nucleic acids from the samples. When the program ends, pipette the purified nucleic acid into a clean tube.



Specification

Feature	Specification
Sample type	Fungi
Purified nucleic acid	Genomic DNA
Sample amount	50-100 mg
Processing time	40-50 minutes
Typical yield	2-10 µg

Data

PCR amplification of tandemly repetitive subelements (TRS)-2 subrepeat element from five isolates of T. rubrum. Numbers below the lanes represent strain numbers. M, DNA Marker. This Figure is reproduced in color in the online version of Medical Mycology and was used here with permission from the source. (Chien-yio Lin, 2017)

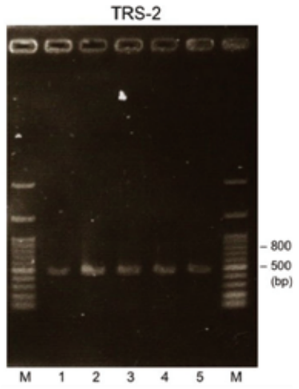


Table 1.

STRAIN NO.	SAMPLING SITE	TRS-2
1	Case 1 scalp	506 bp
2	Case 2 scalp	506 bp
3	Case 3 scalp	506 bp
4	Case 3 right sole	506 bp
5	Case 3 right big toe	506 bp

The sequence length obtained by sequencing of the PCR products of TRS-2. (Chien-yio Lin, 2017)

Instrument	TANBead Fungi DNA Auto Plate	TANBead Fungi DNA Auto Tube
Maelstrom 8	REF: M61FA46; 96 preps	REF: M61FS46; 96 preps
Maelstrom 4800	REF: M61FA46; 96 preps	REF: M61FS46; 96 preps
Maelstrom 9600	REF: W61FA46; 96 preps	REF: W61FS66; 72 preps

References
Chien-yio Lin, Hsiu-Jung Lo, Ming-Gene Tu et.al. The survey of tinea capitis and scalp dermatophyte carriage in nursing home residents. Medical Mycology.2018; 56: 180-185.

FFPE DNA:
61P-SE A/S

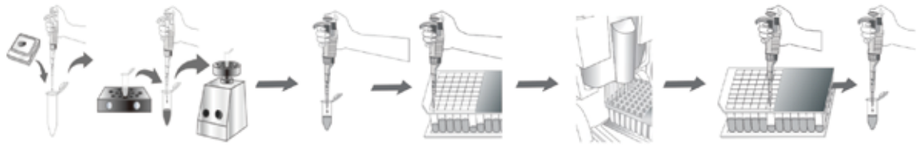
Overcoming the inhibitory effects of formalin crosslinking of nucleic acids can be a difficult process. While many kits use hazardous organic solvents, the TANBead® FFPE Nucleic Acid Extraction Kit uses gentle mineral oil for deparaffinization of FFPE. After pre-treatment with proteinase K and reverse formaldehyde modification of nucleic acids in an incubation buffer, this kit will take you the rest of the way to obtain high purity DNA from FFPE samples.

Application

Purified genomic DNA from formalin-fixed paraffin-embedded (FFPE) tissue sections.

How it works

FFPE tissue sections need to be incubated with Incubation Buffer and Proteinase K in the container at 70°C for 2 hours. After incubated, add Lysis Buffer and Isopropanol into sample. The lysate will be directly processed by the Automatic Nucleic Acid Extractor (Maelstrom series). The silicon dioxide layer coating on the magnetic beads can adsorb and purify nucleic acids from sample. When the program ends, pipette the purified nucleic acid into a clean tube.



Specification

Feature	Specification
Sample type	FFPE tissue sections
Purified nucleic acid	Total DNA
Sample amount	50-60 µm
Processing time	40-50 minutes
Typical yield	2-10 µg

Data

It can be applied to distinguish EGFR mutations in lung adenocarcinomas from patients by peptide nucleic acid clamping-assisted fluorescence melting curve analysis.

			Cycle Threshold(Ct)							
No.	Sample	Non PNA	G719X	E19del	T790M	S768I(V2)	E20 Ins.3dup	L858R	L861Q	
1	Control_sample 1	24.18	34.43	26.24	34.25	38.89	33.25	35.56	37.43	
2	Control_sample 2	24.38	34.65	35.56	36.83	35.83	29.60	29.25	35.50	
3	TANBead_sample 1	24.13	34.06	26.01	37.59	35.49	34.07	39.79	36.60	
4	TANBead_sample 2	25.27	37.04	38.00	36.08	38.05	35.89	30.18	39.53	
			ΔCt-2							
No.	Sample		G719X	E19del	T790M	S768I(V2)	E20 Ins.3dup	L858R	L861Q	
1	Control_sample 1		10.25	2.06	10.07	14.71	9.07	11.38	13.25	
2	Control_sample 2		10.27	11.18	12.45	11.45	5.22	4.87	11.12	
3	TANBead_sample 1		9.93	1.88	13.46	11.36	9.94	15.66	12.47	
4	TANBead_sample 2		11.77	12.73	10.81	12.78	10.62	4.91	14.26	
			ΔCt-1							Result
No.	Sample		G719X	E19del	T790M	S768I(V2)	E20 Ins.3dup	L858R	L861Q	
1	Control_sample 1		-0.93	7.76	-1.25	-5.89	-3.25	-2.56	-4.43	E19del
2	Control_sample 2		-1.15	-1.56	-3.83	-2.83	0.40	3.75	-2.50	L858R
3	TANBead_sample 1		-0.56	7.99	-4.59	-2.49	-4.07	-6.79	-3.60	E19del
4	TANBead_sample 2		-3.54	-4.00	-3.08	-5.05	-5.89	2.82	-6.53	L858R

Instrument	TANBead OptiPure FFPE DNA Auto Plate	TANBead OptiPure FFPE DNA Auto Tube
Maelstrom 8	REF: M61PA46-SE; 96 preps	REF: M61PS46-SE; 96 preps
Maelstrom 4800	REF: M61PA46-SE; 96 preps	REF: M61PS46-SE; 96 preps
Maelstrom 9600	REF: W61PA46-SE; 96 preps	REF: W61PS66-SE; 72 preps

Forensic Tissue DNA: 6TFA/S

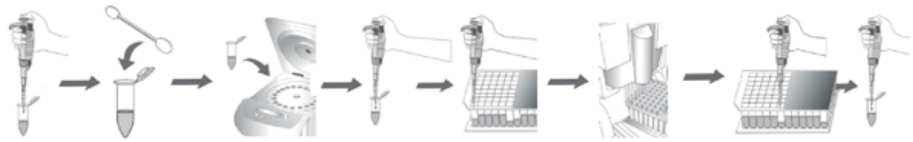
Due to the growth of forensic sciences around the globe, we have developed the TANBead® Forensic Nucleic Acid Extraction Kit, which presents a rapid and simple solution to the problems faced by forensic labs. This kit enables short tandem repeat (STR) analysis from a wide variety of samples (swabs, cigarette butts, stains, hair, chewing gum, etc.)

Application

Purified total DNA from diverse forensic specimen.

How it works

Forensic specimens need to be incubated with Incubation Buffer, 20 µl Proteinase K and 10 µl β-ME in the container at 56°C for 2-4 hours. After centrifuged, the lysate can be directly processed by the Automatic Nucleic Acid Extractor (Maelstrom series). The magnetic beads have a silicon dioxide coating to adsorb and purify nucleic acids from samples. When the program ends, transfer the purified nucleic acid to a clean tube.



Sample Pretreatment

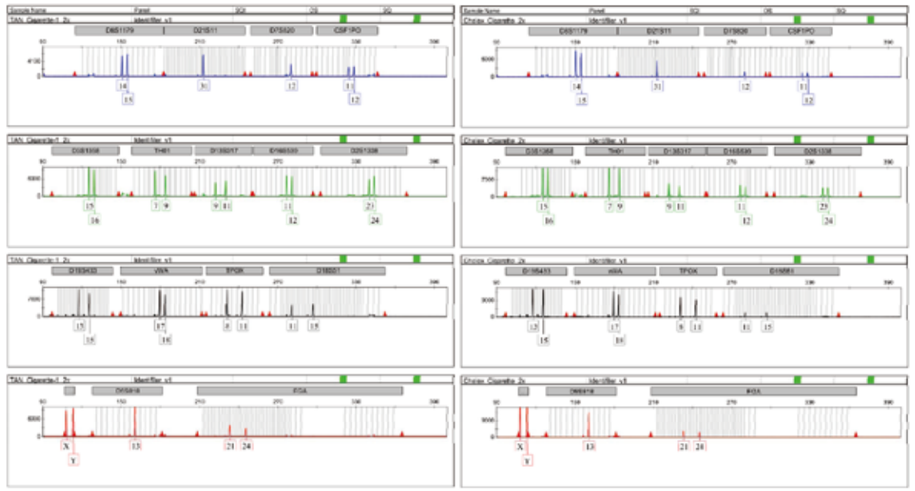
Sample	Treatment
Swab	Cut the swab top and put into a 1.5 ml tube.
Butts	Cut a 1 cm^2 piece of outer paper from the end of the cigarette or filter. Cut the outer paper into 6 smaller pieces, then transfer the pieces to a tube.
Hair	Put a hair (1-3 cm with roots) into 1.5 ml tube.
Stains	Cut up to 0.5 cm^2 of stained material and then cut it into smaller pieces and transfer the pieces to a tube.
Chewing gum*	Cut up to 30 mg of chewing gum into small pieces and transfer them to a tube.
Fingerprints (Paper)	Cut out a 0.5-2.5 cm^2 sample from the paper or similar material, and then cut it into small pieces, transfer the pieces to a tube.

Specification

Features	Specification
Sample type	Forensic specimen (Swab/ Butts/ Stain/ Hair/ Chewing gum/ Fingerprints)
Purified nucleic acid	Total DNA
Processing time	40-50 minutes
Typical yield	2-5 µg

Data

Compared with Chelex ® 100 Resin(BIO-RAD) using cigarette samples, TANBead® Nucleic Acid Extraction Kit has the same performance in STR analysis(short tandem repeat) by AmpFLSTR™ Identifiler™ PCR Kit on 3730 Genetic Analyzer(Applied Biosystems™).



Instrument	TANBead Forensic DNA Auto Plate	TANBead Forensic DNA Auto Tube
Maelstrom 8	REF: M6TFA46; 96 preps	REF: M6TFS46; 96 preps
Maelstrom 4800	REF: M6TFA46; 96 preps	REF: M6TFS46; 96 preps
Maelstrom 9600	REF: W6TFA46; 96 preps	REF: W6TFS66; 72 preps

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