

SOP for Allsheng Auto-Pure 32A and 96 Nucleic Acid Purification System Ver: 2204

Saliva gDNA Isolation Kit (Beads)

(BW-MGD2318-A32 and A96)





For In VitDiagnostic Use Only



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BEIWO Saliva gDNA Isolation Kit provides a fast and simple procedure for isolating genomic DNA from saliva or swab samples collected. Human genomic DNA extracted from buccal epithelial cells and white blood cells found in saliva or swab samples can be used in various applications in diagnostics. Saliva DNA can also be used to diagnose particular types of infections. Saliva gDNA purified using this kit is of the highest quality, and is compatible with a number of downstream research applications including PCR analysis, Southern Blot analysis, sequencing or microarray analysis. MGD2318-A32 is compatible with BEIWO BW Express 16, Allsheng Auto-Pure 32A; MGD2318-A96 is compatible with both manual and automated processing.

KIT CONTENTS

1 BW-MGD2318-A32

Catalog#	Well position	BW-MGD2318- A32-10	BW-MGD2318- A32-11	BW-MGD2318- A32-12		
Preps		1 x 32	10 x 32	20 x 32		
Lysis Buffer	Column 1/7	600 µL	600 µL	600 µL		
Beads	Column 2/8	400 µL	400 µL	400 µL		
Wash Buffer 1	Column 3/9	600 µL	600 µL	600 µL		
Wash Buffer 2	Column 4/10	800 µL	800 µL	800 µL		
Wash Buffer 3	Column 5/11	800 µL	800 µL	800 µL		
Elution Buffer	Column 6/12	100 µL	100 µL	100 µL		
RNase A	-	190 uL	1.9 mL	2 × 1.9 mL		



8-strip Tip Comb	-	4	40	80

2 BW-MGD2318-A96

Catalog#	Plate position	BW-MGD2318- A96-10	BW-MGD2318- A96-11	BW-MGD2318- A96-12		
Preps	-	1 x 96	4 x 96	10 x 96		
Lysis Buffer	2	600 μL	600 μL	600 µL		
Beads	3	400 µL	400 µL	400 µL		
Wash Buffer 1	4	600 μL	600 μL	600 μL		
Wash Buffer 2	5	800 μL	800 μL	800 μL		
Wash Buffer 3	6	800 μL	800 μL	800 μL		
Elution Buffer	8	100 µL	100 µL	100 µL		
RNase A	-	550 uL	2.2 mL	5.5 mL		
96-Well Tip Comb	-	1	4	10		

STORAGE

The kit should be stored dry and at room temperature (15~25°C). Store **RNase A** at -20°C to 8°C is recommended. The kit can be stored for at least 12 months without showing any significant reduction in performance, capacity, or quality of separation.

EXPECTED USAGE

For nucleic acid extraction, enrichment, purification and other steps. The processed product is used for clinical in vitro detection.

BEFORE STARTING

- ☑ Operate in an environment with the appropriate biosafety laboratory level (e.g BSL-2 or higher level) and wear appropriate personal protective equipment (e.g. gowns, gloves, goggles) when working with clinical specimens.
- ☑ Ultraviolet disinfection of the Purification Instrument prior to use is recommended.
- ☑ Buffer may form precipitates upon storage, dissolve precipitates at 37°C before use.

SAFETY INFORMATION

- ☑ When working with chemicals, always wear a suitable lab coat, disposable gloves, and protective goggles. For more information, please consult the appropriate material safety data sheets.
- \square The product should be used in strict accordance with the instructions. If it is not used in accordance with the regulations, it may cause pollution to the environment.
- \square Products are disposable, do not reuse, and the used product should be placed in the



designated position in time.

- \square Exceeding the expiration date of this product, the performance of the product may be reduced, so it should be used within the expiration date.
- ☑ This kit can only be used for in vitro experiments, and not for clinical, therapeutic and in vivo experiments in animals. If it is not used in accordance with the regulations, the company will not be responsible for the consequences arising therefrom.

PROCEDURE (BW-MGD2318-A32)

- If necessary, gently shake the pre-loaded 96-well plate to let the reagent or magnetic beads assemble at the bottom of the plate. NOTE: If there is any precipitation in Column 1/7, incubate the plate at 37°C to dissolve the precipitation before use.
- Carefully remove the sealing foil of the 96-well plate, aspirate 400 uL saliva / swab samples collected in preservation solution or 200 μL fresh saliva sample into the deep well in Column 1/7. Optional: If RNA free gDNA is desired, add 5 μL RNase A into each well in Column 1/7.
- **3.** Put the plate in a BEIWO BW Express 16 or an Allsheng Auto-Pure 32A Nucleic Acid Purification System.
- 4. Install two 8-strip Tip Combs for each plate.
- 5. Run the program described in Table 1.
- 6. After the program is completed, take out the 96-well plate and aspirate the gDNA solution from Column 6/12 into new sterile tube. The gDNA solution is ready to be used or can be stored at -20°C or -80°C.

Step	Well	Name	Mix time (min)	Magnet (sec)	Wait time (min)	Vol. (µL)	Mix speed (1-10)	Temp. (°C)	· ·		Magnet pos (0-100%)	Magnet speed (1-10)
1	1	Lysis	7	0	0	1000	10	37	0	80	0	1
2	2	Beads	0.5	10	0	400	10	OFF	0	80	0	1
3	1	Bind	4	20	0	1000	10	37	0	80	0	1
4	3	Wash1	1	10	0	600	10	OFF	0	80	0	1
5	4	Wash2	1	10	0	800	10	OFF	0	80	0	1
6	5	Wash3	1	10	1	800	10	OFF	0	80	0	1
7	6	Elute	5	20	0	100	10	85	0	80	0	1
8	2	Drop	0.5	0	0	400	5	OFF	0	80	0	1

Table 1. Recommended program for Auto-Pure 32A Nucleic Acid Purification System

Note: Set 'Heating synchronization', 'Cool Fan Disabled', 'Cooling synchronization', and 'Drying Fan Disabled'



PROCEDURE (BW-MGD2318-A96)

- 1. Take out the 96-well plates required for single batch gDNA extraction. Gently shake the plates if necessary to let the reagent or magnetic beads assemble at the bottom of the plates. NOTE: If there is any precipitation in Lysis Buffer, incubate the plate at 37°C to dissolve the precipitation before use.
- Carefully remove the sealing foil of the 96-well plate named Lysis Buffer, aspirate 400 μL saliva / swab samples collected in preservation solution or 200 μL fresh saliva sample into the deep well. Optional: If RNA free gDNA is desired, add 5 μL RNase A to the Lysis Buffer.
- 3. Put the Lysis Buffer plate on position 2 of the Allsheng Auto-Pure 96 instrument.
- Carefully remove the sealing foil of the 96-well plate named Wash Buffer 3, put a 96-Well Tip Comb into the plate, and put them on position 6 of the Auto-Pure 96 instrument together.
- Carefully remove the sealing foils of other 96-well plates and put them on the corresponding positions according to the position specified in the KIT CONTENTS table as well as marked on the plate labels.
- 6. Run the program described in Table 2.
- 7. After the program is completed, take out the **Elution Buffer** plate on **position 8**, aspirate the **gDNA solutions** into new sterile tubes.
- 8. The gDNA solution is ready to be used or can be stored at -20°C or -80°C.
- 9. Table 2. Recommended program for Auto-Pure 96 Nucleic Acid Purification System

Step	Name	Plate	Time	Amp	Wait Time (min)		Mix Speed (1-10)	Temp. (°C)	Seg- ments (0-5)	1st Seg. time (s)	2nd Seg. time (s)	3rd Seg. time (s)	4th Seg. time (s)	5th Seg. time (s)	times	speed		Anti- Splash (0-30s)
1	Load	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	Lysis	2	7	80	0	1000	9	55	0	-	-	-	-	-	-	-	0	0
3	Beads	3	0.3	80	0	400	4	OFF	1	10	-	-	-	-	1	1	0	0
4	Bind	2	4	80	0	1000	10	37	2	10	10	-	-	-	1	1	0	0
5	Wash1	4	1	80	0	600	10	OFF	1	10	-	-	-	-	1	1	0	0
6	Wash2	5	1	80	0	800	10	OFF	1	10	I	-	-	-	1	1	0	0
7	Wash3	6	1	80	1	800	10	OFF	1	10	-	-	-	-	1	1	0	0
8	Elute	8	5	80	0	100	3	85	1	20	-	-	-	-	1	1	0	0
9	Unload	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Set 'Heating synchronization', 'Cool Fan Disabled', 'Cooling synchronization', and 'Drying Fan Disabled'



Appendix Index of Symbols

IVD	In vitro diagnostic medical device						
LOT	Lot number						
	Manufacturer						
\triangle	Attention, see instruction for use						
EC REP	Authorized representative in the European Community						
\sim	Date of manufacture						
$\mathbf{\Sigma}$	Use until year & month (Expiration date)						
CE	CE mark						

LIMITED USE AND WARRANTY

This product is warranted to perform as described in its labeling and in BEIWO's literature when used in accordance with instructions. No other warranties of any kind, express or implied, including, without limitation, implied warranties of merchantability or fitness for a particular purpose, are provided by BEIWO. BEIWO's sole obligation and purchaser's exclusive remedy for breach of this warranty shall be, at the option of BEIWO, to replace the products, BEIWO shall have no liability for any direct, indirect, consequential, or incidental damage arising out of the use, the results of use, or the inability to use it product. For technical support or learn more product information, please contact us at 400-115-2855 or visit our website at <u>www.beiwobiomedical.com</u>









Page 7





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