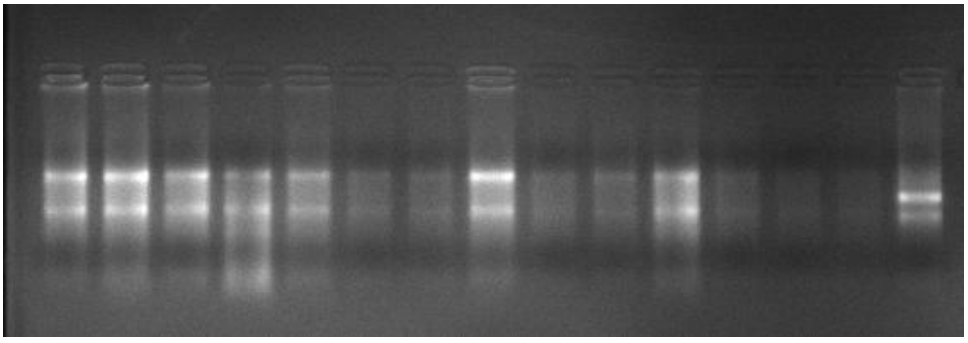
R6613 Test Report

Rapid extraction of whole blood and bone marrow RNA

Sample rapid pretreatment: Add 1.2ml MagZol 3BD into a 15ml centrifuge tube, add 1ml blood or bone marrow, immediately mix vigorously for 15 seconds to disperse the sample, place for 3 minutes, and water bath at 60℃ for 10 minutes. **[Optional: Add 140μl Buffer BCP2 to the mixture, shake quickly and mix for 15 seconds.]** Centrifuge at 4,500-5,000 x g for 15 minutes at room temperature.

On the extractor (about 50 minutes, with DNase treatment): Add 500-600μl supernatant to each well of Row 1/7 and 2/8, the extraction will pause after about 25 minutes. Take out the 96 well plate and add 500μl Buffer ALB2 to the wells of Row 4/10 for rebinding RNA. Continue the program for about 20 minutes until the extraction is complete. Remove the 96 well plate and magnetic tip comb.

Sample Name	Sample Type	Conc. (ng/μL)	Yield (μg)	A260/A280	A260/A230	Note
M8	Marrow	232.7	14.0	2.1	2.0	
M9	Marrow	416.9	25.0	2.1	2.1	
M10	Marrow	198.5	11.9	2.1	1.8	
M11	Marrow	330.0	19.8	2.1	1.9	
B1	Blood	81.2	4.9	1.9	1.4	
B2	Blood	53.6	3.2	1.8	1.3	
B3	Blood	44.4	2.7	1.8	1.2	
B4	Blood	149.0	8.9	2.1	1.8	
B5	Blood	37.1	2.2	1.9	1.2	
B6	Blood	44.5	2.7	2.0	1.5	
MB4	Marrow	921.3	55.3	2.2	2.1	Without BCP2
B7	Blood	47.1	2.8	1.9	1.2	
B8	Blood	33.0	2.0	1.8	1.0	
B9	Blood	30.4	1.8	1.8	1.0	
Hog Blood	Blood	544.9	32.7	2.3	2.3	



Conclusion:

1. Compared to R6611, R6613 kit is easier to operate, does not require red blood cell lysis, and only requires one step of processing, ensuring the quality of extracted RNA.

2. On the basis of R6613 operation, it can be simplified by omitting the Buffer BCP2 step, making the operation more convenient.

3. Due to the use of direct lysis buffer in R6613, the yield of 1ml bone marrow is between 11-55μg, with a maximum concentration of 1-2μg/μl, while that of whole blood is 30-100ng/μl. The concentration of RNA extracted from whole blood or bone marrow samples fluctuates greatly, ranging from 20-2000ng/μl.