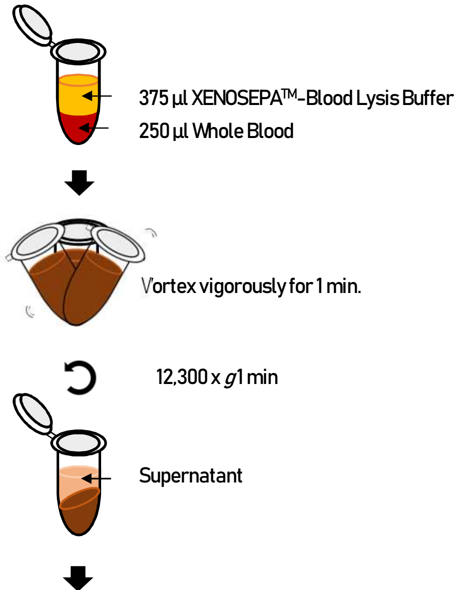
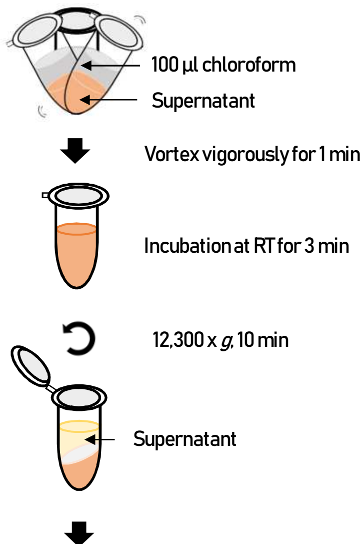
Quick Guide

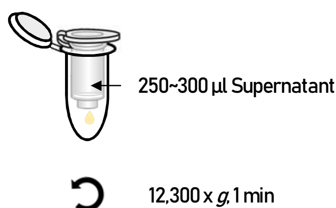
1. Lyse whole blood in XENOSEPA™-Blood Lysis Buffer.



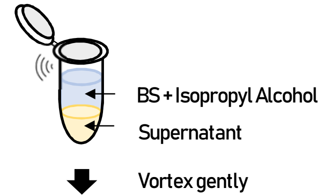
2. Mix the supernatant with chloroform and perform phase separation.



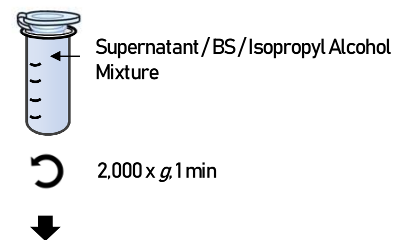
3. Transfer the upper aqueous phase to a gDNA removal column.



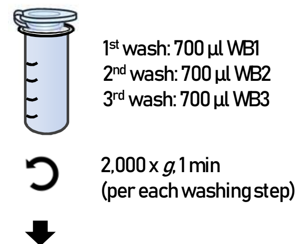
4. Discard the column and optimize the RNA binding condition.



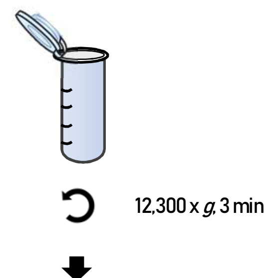
5. Load the mixture and bind RNA to XENOPURE™ Small RNA Spin column.



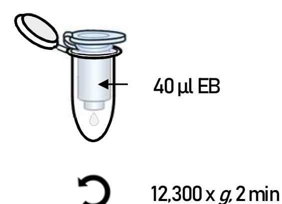
6. Discard the flow-through and wash the column.



7. Transfer the column into a new collection tube and dry the column.



8. Transfer the column into a new microcentrifuge tube and elute RNA.



For research use only. Not for use in diagnostic procedures.

Protocol: XENOPURE™ Blood Small RNA Purification Kit

1. Prepare 250 µl of blood and add 375 µl (1.5 volume) of XENOSEPA™-Blood Lysis Buffer to the sample and mix it thoroughly by vortexing.
2. Centrifuge the mixture for 1 min at 12,300 x *g* and carefully transfer the supernatant to a new 1.5 ml microcentrifuge tube.
3. Add 100 µl chloroform and mix vigorously by vortexing for 1 min.
4. Incubate the mixture at room temperature (15–25°C) for 3 min.
5. Centrifuge the mixture for 10 min at 12,300 x *g* at room temperature.
6. Transfer the upper aqueous phase (250 ~ 300 µl) to a gDNA removal column and centrifuge for 1 min at 12,300 x *g* at room temperature (caution: Avoid transferring any interphase). Discard the removal column and collect the flow-through in a new 1.5 ml microcentrifuge tube.
7. Mix the flow-through with 0.5 volume of Binding Solution (BS) and shake the mixture gently (e.g., for 300 µl aqueous phase, add 150 µl BS).
8. Add an equal volume of isopropyl alcohol and mix gently (e.g., for 450 µl mixture, add 450 µl isopropyl alcohol).
9. Pipet up to 700 µl of the mixture, including any precipitate, into a XENOPURE™ Small RNA Spin column in a 2 ml collection tube. Close the lid and centrifuge at 2,000 x *g* for 1 min at room temperature. Discard the flow-through.
10. Repeat step 9 using the remainder of the sample.
11. Add 700 µl Washing Buffer (WB1) to the XENOPURE™ Small RNA Spin column. Close the lid, and centrifuge for 1 min at 2,000 x *g*. Discard the flow-through.
12. Add 700 µl Washing buffer (WB2) to the XENOPURE™ Small RNA Spin column. Close the lid, and centrifuge for 1 min at 2,000 x *g*. Discard the flow-through.
13. Add 700 µl Washing buffer (WB3) to the XENOPURE™ Small RNA Spin column. Close the lid, and centrifuge for 1 min at 2,000 x *g*. Discard the flow-through.
14. Place the XENOPURE™ Small RNA Spin column in a new 2 ml collection tube (supplied). Open the lid of the spin column and centrifuge at 12,300 x *g* for 3 min to dry the membrane. Discard the flow-through and the collection tube.
15. Place the XENOPURE™ Small RNA Spin column in a new 1.5 ml microcentrifuge tube. Add 40 µl of Elution Buffer (EB) directly to the center of the XENOPURE™ RNA column membrane. Close the lid, and centrifuge for 2 min at 12,300 x *g* to elute the RNA.

※ XENOPURE RNA Purification Kit has been designed to effectively eliminate contaminants such as genomic DNA, proteins, etc. during the RNA purification process. This may result in lower RNA quantitative values than those of other company's.

For research use only. Not for use in diagnostic procedures.