

# GeneAll® Exgene Blood SV Kit

## RNA Isolation from **blood** samples



THERE'S NO SINGLE PERFECT WAY  
BUT, WE ARE ONE STEP AHEAD

### Introduction

Blood is one of the most valuable source for RNA isolation as an important role in mediating between the environment and the organism and hence exploring gene expression derived from blood may provide deeper insight into immune response or stress metabolism. Prior carrying out high-throughput applications like gene expression from blood, an evaluation to build consistent and reproducible method is mandatory. However some challenges such as DNA contamination, degradation processes, and clogging of extraction matrices due to the specific characteristics of the sample make blood RNA isolation difficult.

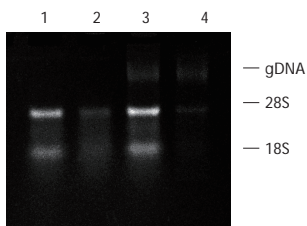
Hybrid-R Blood RNA kit overcomes such problems through the use of optimized buffers and unique EzPure™ Filter, which enables reliable and reproducible RNA preparation, yielding high-quality RNA suitable for any downstream application.

### Feature

- Preparation time: ~30 min (Company Q: 1hr)
- Simple and convenient protocol with no need for RNA precipitation step.
- Rapid purification of high-quality, ready-to-use RNA with no need for RBC lysis step
- Removal of contaminants and inhibitors using EzPure™ Filter
- Accurate and consistent yield from whole blood

Sample size : 100~250 µl whole blood  
Application volume : ~700 µl  
Min. elution volume : 30 µl  
Binding capacity : 100 µg

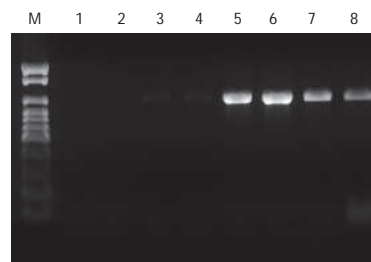
### DNA Extraction from Various Samples



Total RNA was extracted from whole blood using several RNA extraction kits of different companies. The extracted total RNA was loaded on a 1% formaldehyde gel.

Lane 1 : Total RNA from Hybrid-R™ Blood RNA for 250 µl of whole blood  
Lane 2 : Total RNA from supplier A for 500 µl of whole blood  
Lane 3 : Total RNA from supplier B for 500 µl of whole blood  
Lane 4 : Total RNA from supplier C for 250 µl of whole blood

### Verification of Genomic DNA Contamination and RT-PCR Result



As analysis of genomic DNA contamination, PCR for amplification of human beta-actin was performed with eluates purified from whole blood using several kits of other companies.

Lane M : 1 Kb ladder  
Lane 1, 2 : PCR of the eluate from Hybrid-R™ Blood RNA  
Lane 3, 4 : PCR of the eluate from supplier A  
Lane 5, 6 : PCR of the eluate from supplier B  
Lane 7, 8 : PCR of the eluate from supplier C