



ExoComplete™ 96-Well Plate Kit and ExoComplete™ Tube Kit

Frequently Asked Questions (FAQ)

FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES.

About the technology

Q1. What percentage of EMVs are collected by the filter?

Our system capture efficiency is more than 90% for urine and plasma EMVs based on q-PCR results. (ref: Aoki et al Clin Chem 2014)

Q2. What mechanism are we using to capture the EMVs on the plate (i.e. the technology)?

The proprietary technology is based on a combination of electrostatic interaction and size exclusion principles.

Q3. Is it difficult to use? Does it need other systems? Does it require lots of learning and practice?

- i. Our system is simple and easy to use, one time can process up to 96 samples.
- ii. No additional system is needed.
- iii. We do suggest customer to get familiar with the protocol to obtain a reliable result.

Q4. Can I use any remaining unused wells in the filter plate at a later time? How about the mRNA capture plate?

You can use remaining unused wells in the filter plate at a later time. Using an adhesive film to cover unused wells may help to avoid cross-contamination of sample during the assay procedure. However, we recommend using the mRNA capture plate for single-use only.

Q5. How do you normalize the gene expression or exosome numbers between two different samples?

Our system is optimized to capture EMVs specifically for measuring gene expression levels. Gene expression levels can be normalized to internal controls and/or reference genes selected for the specific sample.

The number of EMVs may be used but it requires an alternative method such as Nanoparticle tracking analysis.

Additional Applications

Q6. Can I filter the EMVs only from the plate without extracting the mRNA?

Once the EMVs are filtered, the filter plate or filter tips can be stored at -80°C. The EMVs cannot be eluted from the filter, however, after they have been captured.

Q7. Can I remove the EMVs from the filter?

No, the EMVs cannot be removed or isolated from the filter following filtration.

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Q8. Are we able to separate proteins from the EMVs using this system?

The ExoComplete system was developed to isolate mRNA from various samples and a protein isolation protocol is not available.

Q9. What is the % of mRNA captured from the mRNA capture plate and can it be eluted?

About 10% of the mRNA, independent of the species, was collected based on RT-qPCR assay (ref: Mitsunashi M. Clinical Chemistry 2006).

We recommend cDNA synthesis without eluting mRNA from oligo(dT) plate for maximum sensitivity in gene expression analysis, but mRNA can be eluted if desired. To elute mRNA, apply nuclease-free water to the washed hybridized oligo(dT) plate and heat to 65°C for 5 minutes before placing at 4°C. Collect the eluate which contains the mRNA and place on ice for immediate use or store at -80°C.

Q10. Can we capture miRNA in the plate too?

Yes, it is possible to isolate miRNA from the lysate that remains in the mRNA capture plate after hybridization. We have used another reagent and protocol for isolation of miRNA from this lysate.

About the protocol

Q11. Do you need pre-centrifugation?

Yes, we need to remove larger particles including cells by centrifugation prior to the assay. Centrifuge speed (500-3500 xg) and time (15'-30') can be optimized depend on samples.

Q12. Can I apply a volume larger than 12.5mL to a single ExoComplete tube?

Yes, you can apply sample multiple times up to 30 mL to the same ExoComplete tube. The recommended capacity is 1-30mL for the ExoComplete tube.

Q13. What is the minimum and maximum sample volume that can be applied to the Exo Complete filter plate?

Spec of Filter plate vol. is 400µL. We recommend less than 400µL for one application. Then you can repeat the process to add more samples. The recommended capacity is 100-800 µL sample volume for the ExoComplete filter plate.

Q14. Do I need to optimize the process for my sample?

Depending on the sample quality, you may need to optimize your process.

Q15. Can I use the ExoComplete filter plate or tube for frozen and fresh samples? Will the result vary?

The ExoComplete system can be used for both frozen and fresh samples. The variation in the result will be dependent on the quality of the sample.

To learn more about the *LeukoComplete™ 96-Well Plate Kit*, *ExoComplete™ 96-Well Plate Kit* and *ExoComplete™ Tube Kit*, call Hitachi Chemical Diagnostics at 1 800 233 6278, or e-mail sales@hcdiagnostics.com.

The LeukoComplete™ 96-Well Plate Kit, ExoComplete™ 96-Well Plate Kit and ExoComplete™ Tube Kit are Research Use Only Products. None of these products are intended for the diagnosis, prevention, or treatment of a disease, nor have they been validated for such use either alone or in combination with other products.

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