

## ExoRich™ Manual - Reliance Biosciences Inc.

**ExoRich™** - Isolation of Exosomes in 15 minutes

Product # ExoR02, ExoR10, and ExoR40

Store kit at 2°C to 6°C



Reliance-Bio.com

### Product Description

Exosomes are 30-150 nm particles, believed to be secreted from multivesicular endosomes, and containing proteins, lipids, and nucleic acids, including mRNA and microRNAs. Exosomes are present in almost all body fluids. They have been implicated to play multi-faceted roles in cell-to-cell communication, immune response, and progression in a wide range of diseases, e.g. cancer and neurodegenerative diseases.

Isolation of exosomes has been the Achilles' heel to enable full utilization of this important bio-element. Traditional methods such as differential centrifugation, size exclusion chromatography, ultrafiltration, density gradient etc. all have their pros and cons.

ExoRich is an optimized approach to aid in isolation of exosomes. It is designed to overcome as many challenges as feasible with the following features.

### Product Features

Key features of this product are:

1. Easy to use: isolate of high-quality exosomes from samples in **15 minutes**.
2. Sample types include: **plasma, serum, medium**. As little as **100 µl** of sample can be processed.
3. Inexpensive compared to many available exosome isolation methods.

### Component List & Reactions

The ExoRich reagent kit contains 2 reagents and a buffer – details below. Each kit can process 2ml, 10ml, or 40ml of samples, depending on which product number you purchased.

ExoRich Exosome Isolation Reagent 2ml (20 reactions). Product No.: ExoR02 (process 2 ml sample)			
Components	Volume	Number of reactions (100 µl per reaction)	Number of reactions (250 µl per reaction)
ExoRich Reagent A	0.6 ml	20	8
ExoRich Reagent B	1.0 ml		
Buffer C	0.4 ml		

ExoRich Exosome Isolation Reagent 10ml (100 reactions). Product No.: ExoR10 (process 10 ml sample)			
Components	Volume	Number of reactions (100 µl per reaction)	Number of reactions (250 µl per reaction)
ExoRich Reagent A	3 ml	100	40
ExoRich Reagent B	5 ml		
Buffer C	2 ml		

ExoRich Exosome Isolation Reagent 40ml (400 reactions). Product No.: ExoR40 (process 40 ml sample)			
Components	Volume	Number of reactions (100 µl per reaction)	Number of reactions (250 µl per reaction)
ExoRich Reagent A	12 ml	400	160
ExoRich Reagent B	20 ml		
Buffer C	8 ml		

### Notes:

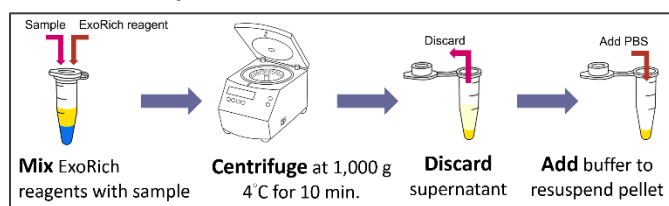
1. Use ExoRich reagents proportionately when the above sample volume is not used.
2. Store ExoRich reagent kit at 2°C to 6°C. Properly stored kit is stable for 1 year from the date received

## Prepare Sample & ExoRich Reagent

1. Remove the sample from storage and place on ice. If sample is frozen, thaw completely in water bath.
2. If needed, centrifuge sample at 2000 x g for 20 min. to remove debris. If further debris removal is necessary, repeat centrifuge at 10,000 x g for 20 min.
3. For **cultured medium**, before using ExoRich, process medium to enrich EV via ultrafiltration (e.g. Amicon ultracel-100; 100kD, 15mL volume filter) or other methods. Repeat process for all medium volume (same filter can likely be used). Wash pellet with PBS at least once. Transfer pellet to a container and resuspend pellet with PBS to 100  $\mu$ l or 250  $\mu$ l depending on EV concentration. (If unsure of EV concentration, 250  $\mu$ l sample is suggested.) The sample is ready for further purification & isolation of EV/exosomes using ExoRich.
4. For **plasma or serum**, no further preparation is needed other than to remove unwanted EV population from sample (e.g., if exosomes are desired, centrifuge at 12,000g to 20,000g to remove microvesicles). The sample is ready for ExoRich isolation of EV/exosomes.
5. For all samples, **prepare ExoRich** reagent by mixing Reagent A, Reagent B, and Buffer C using the volumes listed in the table below. For sample other than 100  $\mu$ l or 250  $\mu$ l, use ExoRich contents proportionally.

ExoRich contents	For 100 $\mu$ l sample, use:	For 250 $\mu$ l sample, use:
Reagent A	30 $\mu$ l	75 $\mu$ l
Reagent B	50 $\mu$ l	125 $\mu$ l
Buffer C	20 $\mu$ l	50 $\mu$ l

## Isolation of EV/Exosomes



1. **Mix** prepared ExoRich reagent (from Step 5 above) with sample by pipetting.
2. **Centrifuge** mixture immediately at 1,000 x g at 4°C for 10 minutes.
3. **Discard** supernatant taking care not to disturb pellet.
4. **Add PBS** volume to resuspend pellet as below:

Sample volume	Add PBS Volume (ref.)
100 $\mu$ l	$\geq$ 50 $\mu$ l
250 $\mu$ l	$\geq$ 125 $\mu$ l

The PBS volume above is provided as a reference only. Sufficient PBS should be added to completely resuspend pellet. Adjust PBS volume as needed. The solution

contains isolated EV/exosomes and is ready for downstream processing or storage (2°C to 6°C for up to 1 week, or at -20°C or colder for long-term storage.)

## ExoRich Data

Sample data processed with ExoRich are available on our website: <https://reliance-bio.com/en/shop/exorich-isolates-exosomes-in-15-min/>

## Related Products – see website

Product	Description
LipoMin	Removes lipoproteins for SEC- or UC-processed sample in 12 mins.
p-tau217 antibody	Phosphorylated Tau 217 monoclonal antibody (clone PSL263)

## Support and Contact

Please visit: [www.reliance-bio.com/en/products](http://www.reliance-bio.com/en/products)

For help, please email:

Sales or tech support: [sales@reliance-bio.com](mailto:sales@reliance-bio.com)

General Information: [info@reliance-bio.com](mailto:info@reliance-bio.com)

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