

Exosome Labeling and Cleaning Kit
Product # 68400**Product Insert**

Exosomes are extracellular vesicles with a diameter of 40 to 150 nm and are secreted by most cell types. Exosomes can be found in and isolated from different biological fluids such as cell culture media, plasma, serum, saliva, urine, amniotic fluid and cerebrospinal fluid. Exosomes are known to contain proteins, small RNAs and lipids. Exosomes isolated from various biological fluids are commonly used in combination with different *in vivo* and *in vitro* models in order to track them after cell penetration or injection in a specific system or organism.

Norgen's Exosomes Labeling and Cleaning Kit offers an all-in-one solution for the fluorescent labeling and clean-up of exosomes. This kit allows for specific labeling of exosomes using a fluorescent molecule, followed by their clean-up to minimize fluorescence background in further analysis. The kit contains sufficient reagents to allow for 25 labelling and cleaning reactions.

Kit Components

Component	Product # 68400 (25 reactions)
Reaction Buffer	30 mL
Labeling Solution	36 μ L
Slurry E	12.5 mL
ExoC Buffer	1.5 mL
ExoR Buffer	12 mL
Mini Filter Spin Column	25
Elution tubes (1.7 mL)	25
Product Insert	1

Storage Conditions and Product Stability

All solutions should be kept tightly sealed and stored at room temperature. The buffers and the labeling solution should be kept in the dark. To prevent evaporation of the Labeling Solution, keep the vial tightly capped except when in immediate use. This kit is stable for 2 years after the date of shipment.

Customer-Supplied Reagents and Equipment

- Disposable powder-free gloves
- Centrifuge capable of 6 000 RPM
- Benchtop microcentrifuge
- Micropipettors
- Sterile pipette tips with filters
- 1.5 mL tubes
- Nuclease-Free Water
- 1% Fetal Bovine Serum or 1% BSA

General Precautions

Proper biosafety measures should be carried out when using this kit.

Quality Control

In accordance with Norgen's ISO 9001 and ISO 13485-certified Quality Management System, each lot of Norgen's Exosome Labeling and Cleaning Kit is tested against predetermined specifications to ensure consistent product quality.

Product Use Limitations

Norgen's Exosome Labeling and Cleaning Kit is designed for research purposes only. Not intended for use in diagnostic procedures.

Product Warranty and Satisfaction Guarantee

NORGEN BIOTEK CORPORATION guarantees the performance of all products in the manner described in our product manual. The customer must determine the suitability of the product for its particular use.

Safety Information

Ensure that a suitable lab coat, disposable gloves and protective goggles are worn when working with chemicals. For more information, please consult the appropriate Safety Data Sheets (SDSs). These are available as convenient PDF files online at www.norgenbiotek.com.

If liquid containing these buffers is spilled, clean with suitable laboratory detergent and water. If the spilled liquid contains potentially infectious agents, clean the affected area first with laboratory detergent and water, and then with 1% (v/v) sodium hypochlorite.

CAUTION: DO NOT add bleach or acidic solutions directly to the sample-preparation waste.

Procedure

Important Notes Prior to Use

- All centrifugation steps are performed at room temperature
- Ensure that centrifuge tubes used are capable of withstanding the centrifugal forces required
- The provided Mini Filter Spin Columns are optimized to be used with a benchtop centrifuge and not to be used on a vacuum apparatus
- Most standard benchtop microcentrifuges will accommodate Norgen's Mini Filter Spin Columns.
- Ensure that solutions are kept in the dark all throughout the labeling and cleaning process.
- Ensure that the Labeling Solution is kept tightly capped except when in immediate use. This will reduce evaporation. The labeling solution should be protected from bright direct light.

1. Place 50 μL of purified exosomes into a 1.5 mL tube (not provided). Add 250 μL of **Reaction Buffer** and vortex briefly. If the volume of exosomes is lower than 50 μL , complete with **Reaction Buffer**.
2. In a new 1.5 mL tube (not provided), combine 250 μL of **Reaction Buffer** and 1 μL of **Labeling Solution**. Vortex briefly.
3. Combine both solutions from Step 1 and Step 2 together (total volume: 551 μL), vortex briefly and incubate for 4 minutes at room temperature in the dark.
4. To stop the labeling reaction, add 550 μL of 1% FBS or 1% BSA (not provided) to the reaction mixture and vortex briefly.
5. Add 2.5 μL of **ExoC Buffer** and 200 μL of **Slurry E** to the labeled exosomes, vortex for 10 seconds and incubate at room temperature for 5 minutes in the dark. **Make sure Slurry E is well mixed before use and that the resin completely resuspended.**
6. Vortex for 10 seconds and centrifuge at 2000 RPM for 2 minutes.
7. Centrifuge again to collect any liquid sticking to the walls of the tube, and then remove this liquid using a pipette carefully without disturbing the slurry pellet.

8. Add 200 μ L of **ExoR Buffer** to the resin, vortex for 10 seconds and incubate 5 minutes at room temperature.
9. Vortex for 10 seconds and centrifuge at 500 RPM for 2 minutes.
10. Collect the supernatant that contains the cleaned and labeled exosomes and transfer it to a filter column.
11. Centrifuge at 6000 RPM for 1 minute.
12. **The eluate contains the labeled exosomes.**

Related Products	Product #s
Cell Culture Media Exosome Purification Kits	60400, 60500, 60600
Urine Exosome Purification Kits	57700, 57800, 57900
Plasma/Serum Exosome Purification Kits	57400, 57500, 57600
Saliva Exosome Purification Kit	65300

Technical Assistance

NORGEN's Technical Service Department is staffed by experienced scientists with extensive practical and theoretical expertise in sample and assay technologies and the use of NORGEN products. If you have any questions or experience any difficulties regarding Norgen's Exosome Labeling and Cleaning Kit or NORGEN products in general, please do not hesitate to contact us.

NORGEN customers are a valuable source of information regarding advanced or specialized uses of our products. This information is helpful to other scientists as well as to the researchers at NORGEN. We therefore encourage you to contact us if you have any suggestions about product performance or new applications and techniques.

For technical assistance and more information, please contact our Technical Support Team between the hours of 9:00 and 5:30 (Eastern Standard Time) at (905) 227-8848 or Toll Free at 1-866-667-4362. or call one of the NORGEN local distributors (www.norgenbiotek.com) or through email at techsupport@norgenbiotek.com.

Norgen's purification technology is patented and/or patent pending. See www.norgenbiotek.com/patents

3430 Schmon Parkway, Thorold, ON Canada L2V 4Y6
 Phone: (905) 227-8848
 Fax: (905) 227-1061
 Toll Free in North America: 1-866-667-4362