

EXO-NET[®] Exosome Isolation Reagent



Sienna Cancer Diagnostics Inc.

1400 Van Buren St NE, Ste 140

Minneapolis, MN 55413 USA

www.exo-net.com

Intended Use

Research Use Only. Not for use in diagnostic or therapeutic procedures.

EXO-NET is intended for use in exosome capture and enrichment from biological samples. The product may not be resold, modified for resale, or used to manufacture commercial products without prior written consent of BARD1 Life Sciences Ltd.

Product Description

Exosomes are extracellular vesicles secreted by most cell types and are thought to function as intercellular messengers, delivering their cargo of effector or signalling macromolecules between specific cells.¹

EXO-NET is an exosome enrichment product designed for use with serum, plasma, urine, and cell culture supernatant.

EXO-NET is a simple method that allows the rapid (<30min) concentration of exosomes using a unique combination of size-selection and immunoaffinity-based capture on magnetic beads, without costly instrumentation. There are two elements to the capture mechanism:

1. A layered NET configuration that selects for particles of a size range characteristic of exosomes.
2. An affinity component leveraging multiple exosomal surface markers to provide a more comprehensive (less biased) capture method, ideal for biomarker discovery purposes.

Applications

Isolated exosomes can be used for Western blot, ELISA, and qRT-PCR.

Product Contents

Each vial of EXO-NET contains 1mL of functionalised capture beads, sufficient for processing up to 65 mL of plasma, serum, urine, saliva or cell culture supernatant.

Storage, Stability and Handling

Store the vial at 2-8°C. DO NOT FREEZE. Return to storage conditions immediately after use.

DO NOT VORTEX.

¹ Zhang Y, Liu Y and Tang WH (2019) Exosomes: biogenesis, biologic function and clinical potential. Cell Biosci. <https://doi.org/10.1186/s13578-019-0282-2>

Required Materials and Equipment

Phosphate buffered saline (PBS)
Magnetic tube stand
Tube rack
Microcentrifuge tubes
Micro pipettor
Sterile Pipette tips

Protocol

You may adjust the amount of EXO-NET beads according to target abundance and application. The following protocol may be applied for most generic applications:

1. Pre-aliquot 0.2 mL of sample (plasma, serum, urine, cell culture supernatant) into sterile microfuge tube. Note: This protocol has not yet been optimized for microtiter plate methods.
2. Allow EXO-NET beads and sample to come to room temperature prior to binding.
3. **IMPORTANT!** With a sterile pipette tip on a 1ml pipette, gently pipette EXO-NET capture beads up and down 10x to disperse the beads evenly in solution.
4. Immediately remove 15 μ L of EXO-NET capture bead stock per 0.2 mL of sample.
5. Add EXO-NET beads directly into the undiluted sample and mix by pipetting gently up and down just 1x. Use a new pipette tip for each sample.
6. After mixing, place the tube in a non-magnetic tube holder for 15 min at room temperature, under static conditions. The beads will settle over this time. Do not extend incubation beyond 15 min.
7. Place tube on magnetic tube stand for up to 2 min (or until beads pellet to completion). Carefully remove supernatant in a manner that limits bead loss.
8. Remove tube from magnet and add 1 mL PBS to the pellet. Do not pipette up and down (as this can lead to loss of bead-bound exosomes).
9. Repeat step 7.
10. Perform wash step for up to a total of 3 wash steps.
11. Resuspend according to application requirements. For nucleic acid extraction, resuspend bead pellet directly in lysis buffer of extraction kit (Qiagen, Promega, or other).

Warnings and Precautions

1. EXO-NET beads contain the preservative ProClin®300 at a concentration of 0.05% (w/w). It contains the active ingredients 2-methyl-4-isothiazolin-3-one and 5-chloro-2-methyl-4-isothiazolin-3-one. Wear appropriate personal protective equipment when handling this product, as exposure may cause irritation to the skin, eyes, mucous membranes, and upper respiratory tract.
2. The concentration of ProClin 300 in this product does not meet the OSHA criteria for hazardous substance.
3. Biofluids, and all materials exposed to them, should be handled as if capable of transmitting infection and disposed of with proper precautions. Never pipette reagents by mouth and avoid contacting the skin and mucous membranes with reagents or specimens. If reagents or specimens come in contact with sensitive areas, wash with copious amount of soap and water. Seek medical advice.
4. Consult local and/or state authorities to determine the recommended method of disposal.

Registered Address

United States
1400 Van Buren St NE Ste 140
Minneapolis MN 55413

Australia
23 Normanby Road
Notting Hill VIC 3168

Contact BARD1

P AUS: +61 3 9548 7586
P USA: +1 612 641 1065
E: info@exo-net.com
E: orders@bard1.com
W: www.exo-net.com
www.bard1.com

Date of Issue

01 June 2021
Dr Peter French | CSO
E pfrench@bard1.com
M +61 412 457 595