

Dynal MPC[™]-15

Magnetic Particle Concentrator

For laboratory use only

For optimal results, please read this instruction leaflet before use.

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1. PRODUCT DESCRIPTION

1.1 Intended Use

Dynal MPC[™]-15 is a magnetic particle concentrator (magnet) for use with standard 15 ml tubes. The use of Dynal

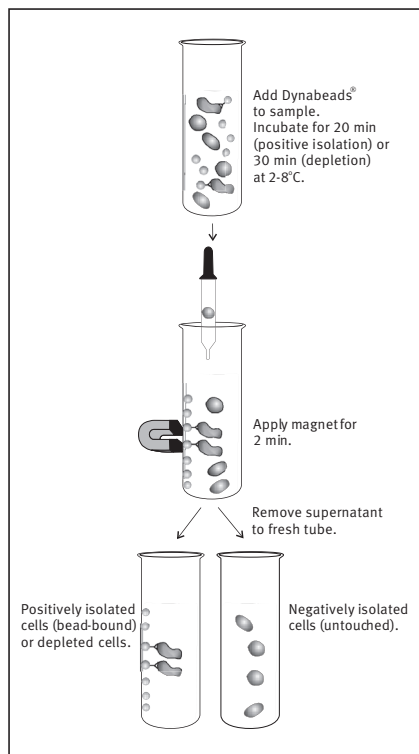


Figure 1: General cell isolation method with Dynabeads.

MPC-15 allows the separation of Dynabeads[®] from diverse liquid sample matrices.

1.2 Principle of Isolation

Dynabeads are mixed with the sample in a tube. The Dynabeads will bind to the target material during a short incubation, and then the bead-bound cells are separated by the magnet (fig.1).

Dynabeads will be attracted to the side of the tube facing the magnet when the tube is inserted into the Dynal MPC-15 housing. This enables easy removal of supernatant. The Dynabeads with bound material are left in the tube.

1.3 Product Description

The Dynal MPC-15 Magnetic Particle Concentrator contains an ABS plastic housing incorporating high-energy neodymium magnets.

It is designed to hold one standard 15 ml tube with working volumes ranging from 1 ml to 15 ml. It will handle superparamagnetic particles of sizes ranging from 0.8 μm to 4.5 μm .

Nominal magnetic properties

High performance rare earth magnet alloy, Neodymium Iron Boron (NdFeB). Residual magnetic flux density (Br) at working distance from the magnet (at the surface of the magnet assembly): 5,800 Gauss (0.58 Tesla).

1.4 Technical Support

Please contact Invitrogen Dynal for further technical information (see contact details).

2. GENERAL INFORMATION

Invitrogen Dynal AS complies with the Quality System Standards ISO 9001:2000 and ISO 13485:2003.

2.1 Precautions

This product contains a very strong permanent magnet. People wearing a pacemaker should not use this product. Pacemakers may be affected or damaged if they come in close contact with a strong magnetic field.

Keep the Dynal MPC-15 magnet away from credit cards and all other products containing magnetic recording devices, such as videocassettes and computer discs. Keep away from delicate instru-

ments, watches, electronic equipment, displays and monitors.

The Health and Safety Officer should take all necessary steps and full responsibility to ensure that the precautions and statements are followed and adhered to. IN NO EVENT SHALL INVITROGEN DYNAL AS BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

2.2 Handling

Any laboratory skilled in using conventional laboratory techniques that follow good laboratory practices may use Dynal MPC-15 for separation of Dynabeads.

The magnet may attract steel or other magnetic material with high mechanical forces. Great care is needed during handling.

Prevent any form of contact between two magnets! If contact has been made, do not pull apart. Twist off to prevent damage to the unit or fingers.

2.3 Disinfection

The following materials have been tested for cleaning purposes. Spray and/or wipe the Dynal MPC-15 unit with one of the following cleaning agents:

- 70% isopropyl alcohol
- 1% sodium hypochlorite solution (Bleach)
- 0.1N HCl solution

Other disinfectants have not been tested and may not be suitable.

Do not submerge in aqueous solutions. And avoid prolonged exposure to water or aqueous solutions.

Clean with a damp cloth and mild detergent when exposed to harsh solvents.

Do not autoclave the Dynal MPC-15.

2.4 Storage and Stability

Your Dynal MPC-15 contains high-energy Neodymium permanent magnets. Magnetic strength will not diminish significantly during the lifetime of the product. Loss of magnetic strength will occur only if the magnets are exposed to temperatures greater than 90°C. Store the product in a cool, dry environment. Do not leave Dynal MPC-15 exposed to artificial UV light, as the surface material may become brittle.

2.5 Warning and Limitations

This product is for research use only. Not intended for any animal or human therapeutic or diagnostic use unless otherwise stated.

This product guarantees optimum isolation of Dynabeads, not the isolation

of a specific material. Recovery of biomolecules by magnetic isolation depends on the avidity of the antibodies or ligands on the surface of Dynabeads, as well as factors concerning the biomolecules themselves and the matrix from which they are to be isolated.

Material Safety Data Sheet (MSDS) is available at <http://www.invitrogen.com>.

2.6 Patents and Trademarks

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Several international patents cover the Invitrogen Dynal and Dynabeads products. US patents US 6,451,207 and US 6,413,420 are owned by Dexter Magnetic Technology Inc.

2.7 Intellectual Property Disclaimer

Invitrogen Dynal will not be responsible for violations or patent infringements that may occur with the use of our products.

2.8 Limited Use Label License

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2.9 Warranty

The products are warranted to the original purchaser only to conform to the quantity and contents stated on the vial and outer labels for the duration of the stated shelf life. Invitrogen Dynal's obligation and the purchaser's exclusive remedy under this warranty is limited either to replacement, at Invitrogen Dynal's expense, of any products which shall be defective in manufacture, and which shall be returned to Invitrogen Dynal, transportation prepaid, or at Invitrogen Dynal's option, refund of the purchase price.

Claims for merchandise damaged in transit must be submitted to the carrier.

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Contact details for your local Invitrogen sales office/technical support can be found at <http://www.invitrogen.com/contact>

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