

Dynal MPC™-S

Magnetic Particle Concentrator

For research 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™-S is a magnetic particle concentrator (magnet) for use with microcentrifuge tubes. The use of Dynal MPC-S 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 material is separated by the magnet. Dynabeads will be attracted to the side of the tube facing the magnet when the tube is inserted into the Dynal MPC-S housing and the magnetic slide is inserted. This enables easy removal of supernatant. The Dynabeads with bound material are left in the tube.

1.3 Product Description

The Dynal MPC-S is designed to hold 6 microcentrifuge tubes with working volumes ranging from 10 µl to 2 ml.

The Dynal MPC-S consists of:

- Tube housing
- Removable magnetic slide

The unit has two positions for insertion of the magnetic slide. The vertical position is intended for use with round-bottomed or conical microcentrifuge tubes for larger volume applications (0.5 – 2 ml). The tilted position is for conical microcentrifuge tubes only and is better for lower volume applications (0.01 – 0.5 ml).

To prevent damage to the unit, the magnetic slide must be inserted with the protruding edge of the slide downwards and with the tape side facing the tubes.

The Dynal MPC-S is made of disinfectant proof material for easy cleaning (see section 2.2).

The blue plastic springs contain maximum structural memory characteristics.

The magnetic slide contains optimal rare-earth neodymium permanent magnets.

Nominal magnetic properties

High performance rare earth magnet alloy, Neodymium Iron Boron (NdFeB)

Residual magnetic flux density (Br): 12,200 Gauss (1.22 Tesla)

Br at working distance from the magnet (at the surface of the magnet assembly): 3,500 Gauss (0.35 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 very strong permanent magnets. 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-S magnetic slide away from credit cards and all other products containing magnetic recording devices, such as videocassettes and computer discs. Keep away from delicate instruments, 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 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-S for separation of Dynabeads.

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

Prevent any form of contact between two magnetic slides! 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-S 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-S.

2.4 Storage and Stability

Do not leave tubes in the Dynal MPC-S housing when the unit is not in use, as this may stretch the springs. If the springs have been stretched, smaller tubes may not be held tightly in position.

Always leave the magnetic slide in the housing when not in use.

Your Dynal MPC-S contains sintered rare-earth Neodymium Iron Boron permanent magnets. Magnetic strength will not diminish significantly

during the lifetime of the product. Do not use the magnets above 50°C (122°F) and store in a cool, dry environment.

Do not leave Dynal MPC-S exposed to artificial UV light, as the surface material may become brittle.

2.5 Warning and Limitations

The Dynal MPC-S is only guaranteed to satisfactorily isolate Dynabeads, not the isolation of your specific biomolecule. The efficacy of magnetic separation is – as with all biological techniques – critically dependant on the specificity and avidity of the antibody or other ligand applied, as well as factors concerning the bio-molecules themselves and the matrix from which they are to be isolated.

2.6 Patents and Trademarks

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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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