Anti-FITC Magnetic Particles, 1 µm
PRODUCT DATA SHEET

Anti-FITC Magnetic Particles, 1 µm

Description

Anti-FITC magnetic particles are homogeneous, super-paramagnetic antibody micron magnetic beads, which bind highly specific anti-FITC fluorescein antibodies on the magnetic beads, and can specifically bind to cells with FITC fluorescent labeling. The cells bound with magnetic beads can be magnetically adsorbed on the wall of the test tube, and other cells that are not bound to the magnetic beads can be removed by repeated washing. The purity of the target cells was obtained.

Abvigen offers high quality anti-FITC magnetic particles. The product has high repeatability between batches, which can meet the needs of various customers for personalized materials such as research and development, testing and production.

For custom sizes, formulations or bulk quantities please contact our customer service department.

Website: www.abvigen.com Phone: +1 929-202-3014 Email: info@abvigenus.com

Characteristics

Type: Anti-FITC Magnetic Particles, 1 µm

Surface group: Anti-FITC

Dispersing solvent: Preservative solution

Particle size: 1 µm

Concentration: 0.5 mg/mL

Size: 2 mL

Storage condition: Store at 2-8°C to avoid freezing

Operation case

Material preparation

1) Magnetic rack: provide magnetic field for magnetic separation;

2) Rotary mixer: slow rotation upside down mixing to avoid magnetic bead precipitation aggregation when incubating with cells;

3) FITC-labeled antibodies or ligands, etc.;

4) The buffer is separated, and the buffer required for the incubation of cells and magnetic beads with cells is 0.01 M PBS+0.5% BSA+2 mM EDTA, pH=7.4 (Ca^{2+} and Mg^{2+} are avoided in the separation buffer liquid system).

5) The cells are pre-cooled and kept cool to avoid non-specific markers.

6) The number of cells is recommended to be less than 10^7, and when a higher number of cells is used, the amount of reagents and the total volume of the reaction are increased accordingly.

Cell preparation

1) When the whole blood of human peripheral blood is used as the separation sample, the mononuclear cells need to be separated by density gradient centrifugation to improve the separation efficiency. For example, if the lymphocyte separation solution is used, please refer to the manual of lymphocyte separation solution for specific operation steps.

2) When the mononuclear cell population is used as the separation sample, it is necessary to use 2 times (or larger) the volume of separation buffer, centrifuge at 3000 rpm for 15min, and wash the cells once;

3) Resuspension cells with separation buffer to 1×10^7 cells /mL, refrigerated at 2-8°C for later use.

Magnetic bead preparation

1) The magnetic beads should be mixed before use, which can be mixed by vortex or oscillation or rotation;

2) Absorb quantitative magnetic bead suspension according to the recommended dosage, re-suspension with separation buffer, and then magnetic separation with magnetic rack for 1 min to remove the supernant;

3) Remove the magnetic rack and use the same volume of separation buffer to re-suspend the magnetic beads.

Magnetic separation

Taking 1×10^7 cells isolated in a single time as an example, when the total number of cells isolated increased, the amount of magnetic beads was increased proportionally, and the total number of cells isolated in a single time was not less than 1×10^7 cells and not more than 1×10^8 cells

Note: Excessive cell volume will result in non-specific adsorption.

1) Absorb 1 mL suspension containing 1×10^7 cells into a 2 mL centrifuge tube, add 20 µL magnetic bead suspension, and mix well;

2) Rotating incubation at 2-8°C for 20 min to avoid precipitation aggregation;

3) After incubation, place the centrifuge tube on the magnetic rack for magnetic separation for 2 min, and save or discard the supernatant as required;

Note: Removal of FITC labeled cells: After magnetic separation, the supernatant is absorbed into a new centrifuge tube for downstream application. Step 4 is not required.

Positive sorting FITC labeled cells: After magnetic separation, the supernatant was absorbed and discarded, and step 4 was performed.

4) Remove the magnetic rack, blow or scroll with 1 mL separation buffer, and repeat step 3.

Note: To increase separation purity, it is recommended to wash at least 2 times.

Note: To ensure downstream application, keep the cells operating at 2-8°C, and control the temperature of the separation buffer at about 4°C to reduce non-specific binding.

Table 1. Recommended dosage, using 1×10^7 cells as an example

Procedure	**Minimum volume (1X)**	**Maximum volume (10X)**
Centrifuge tube	2 mL	15 mL
Magnetic rack recommended	Magnetic rack	Multifunctional magnetic rack
Sample volume	1 mL	10 mL
Bead volume	20 µL	200 µL
Separation buffer (positive separation)	3×~1 mL	3×~10 mL

Storage

Store at 2-8°C to avoid freezing.

Ordering Information

Website: www.abvigen.com

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