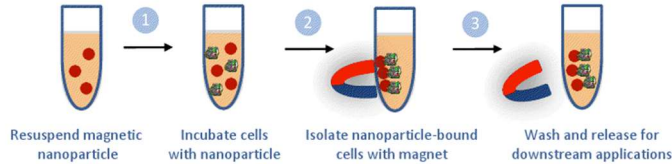


MagVigen™ - Anti-CD45, Human Nanoparticles Cat # K51002

Product Description

MagVigen™ - Anti-CD45 nanoparticles are ideal for epithelial tumor cell enrichment for cellular or molecular analysis. MagVigen™ Anti-CD45 recognizes and efficiently binds to human epithelial cells following a short incubation. The generated nanoparticle-cell complex can be separated from the rest of the sample by magnet. The cells can be detached from the beads with the Release Buffer supplied.



MagVigen™ - Anti-CD45 enables high recovery of high-purity and viable cells for use in further downstream molecular or cellular assays. The beads bound cells can be lysed for further protein or nucleic acid purification. MagVigen™ nanoparticles are much smaller than conventional micro-beads. This feature allows for better accessibility of the nanoparticles to the antigenic epitope on cell surface. In addition, the surfaces of MagVigen™ nanoparticles are uniquely coated to reduce non-specific interactions with non-targeted cells.

Product Contents

- MagVigen™ - Anti-CD45 nanoparticles (Cat # 51002) are provided in phosphate buffered saline (PBS), pH 7.4. Each vial contains 1 ml of solution with a particle concentration of 1 mg/ml, which is enough for approximately 50 cell capture assays.
- Washing Buffer (10X), 15 ml

All materials should be stored at 4°C.

Shelf life: up to 6 months.

Protocol

This protocol provides a general guidance for enriching 10^5 cells using MagVigen™- Anti-CD45. Please adjust the amount of reagents for specific application.

1. Dilute 10X Washing Buffer with PBS to make 1X Washing Buffer.
2. Gently vortex or pipette the MagVigen™- Anti-CD45 nanoparticles in the vial before use.
3. Aliquot 20 μ l nanoparticle solution for enrichment experiment.
Note: 20 μ l is generally sufficient for the enrichment of $1-10 \times 10^5$ cells. Cell capture efficiency can be affected by factors such as frequency of target cells in the cell population, density of antigen/epitope expressed on the cell surface, and the antibody affinity. Adjust the amount of nanoparticles accordingly.
4. Wash nanoparticles with 500 μ l 1X Washing Buffer twice. Separate the nanoparticles from the solution by placing the

5. magnet on the side of the tube for 1-2 min and remove the supernatant carefully (with magnet still on the side).
6. Incubate the nanoparticles with the cell sample on an orbital shaker for 30 – 60 minutes at room temperature.
7. After incubation, use a magnet to separate the nanoparticles (with bound cells) from the solution, and carefully remove the supernatant.
8. Wash the nanoparticle-cell complex with 500 μ l cell culture medium twice.
9. Isolated cells can be re-suspended in cell culture medium for downstream applications.