Absolute Mag™ Anti-CD8a Magnetic Particles, 200-500 nm

Cat.No: WHM-N040

DESCRIPTION

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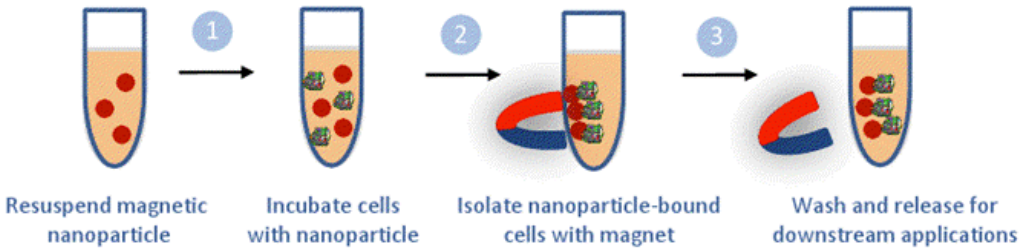
Absolute Mag™ Anti-CD8a Magnetic Particles are ideal for rapid isolation or depletion of human CD8a+ progenitor stem cells. Absolute Mag™ magnetic particles coated with anti-CD8a monoclonal antibody recognize and efficiently bind to CD8a+ cells following a short incubation. The magnetic particles bound CD8a+ cells can be separated from the rest of the sample by magnet.



Absolute Mag™ - Anti-CD8a Magnetic Particles offers high recovery of high-purity and viable cells for use in further downstream molecular assays. The beads bound cells can be lysed for further protein or nucleic acid analysis. Absolute Mag™ magnetic particles are much smaller than conventional micro-beads. This feature allows for better accessibility of the particles to the antigenic epitope on cell surfaces. In addition, the surfaces of Absolute Mag™ magnetic particles are uniquely coated to reduce non-specific interactions with non-targeted CD8a negative cells.

KIT COMPONENTS

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Absolute Mag™ anti-CD8a magnetic particles are provided in 1 ml of phosphate buffered saline (PBS), pH 7.4.

Cat# WHM-040K further includes: Cell Separation Buffer 10 ml.

SPECIES REACTIVITY

Species Reactivity

The product has been tested for human CD8a+ progenitor stem cells. Others not tested.

STORAGE

Storage Condition

All materials except the magnet should be stored at 4°C. When stored as specified the product is stable for six months.

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GENERAL PROTOCOL

Deplete or Positively Isolate CD8a+ cells

1. Dilute blood with an equal volume of PBS + 2 mM EDTA.
2. Slowly layer the diluted blood over the Ficoll-Hypaque solution in a 50-ml conical centrifuge tube. Use 2 ml of Ficoll-Hypaque (not included, product by Sigma Aldrich) per 1 ml of blood.
3. Centrifuge at 400 g for 40 min at room temperature with no brake.
4. Collect the mononuclear cells located at the interface between plasma and the Ficoll-Hypaque and transfer to 15-ml conical tube.
5. Dilute aspirated mononuclear cells with 4 volume of cold PBS.
6. Centrifuge at 400 g at 4°C for 10 min and discard the supernatant.
7. Re-suspend mononuclear cells from 1 ml peripheral blood in 1 ml Cell Separation Buffer.
8. Wash 25 µl of Absolute Mag™-Anti-CD45 particles once with 200 µl of PBS Buffer. Re-disperse in 25 µl of PBS buffer.
9. Add pre-washed particles to the mononuclear cell solution with 4-5 million cells and incubate with gentle rotation at 4°C for 1-2 hour.
10. Place the tube by a magnet for 5 min.
    For depletion: Transfer supernatant to a new tube for further use and discard the particles.
    For positive isolation: While the tube is still in the magnet, carefully remove and discard the supernatant.
11. For positive isolation, wash particles-bound cells in 200 µl of Cell Separation Buffer or PBS Buffer and pellet down beads-bound cells as above.
12. Re-suspend isolated cells in PBS or preferred cell medium for further use in downstream applications.