MaxSortin® CD3 Beads

Product Name

English Name： MaxSortin® CD3 Beads

Packaging Specifications

Filling Volume/CatalugueNumber： 2mL / TL - 622

Product Performance

Reactivity Species: Human

Endotoxin: < 2 EU/mL

Appearance: Brown liquid

Intended Use

Nanoscale MaxSortin® CD3 Beads are designed for the isolation of human CD3+ T cells. By conjugating anti-human CD3 monoclonal antibodies to the beads, CD3+ cells are efficiently selected through magnetic separation.

Instructions for Use

Experimental Steps:

1.1 Resuspend human PBMCs (Peripheral Blood Mononuclear Cells) in PBS buffer containing 1% HSA. Count the cells and transfer 1×10^7 cells into a 1.5 mL microcentrifuge tube. Centrifuge at 1500 rpm for 5 minutes.

1.2 Resuspend the cell pellet in 80 µL MaxSortin® Cell Sorting Buffer (MS-BF). Add 20 µL CD3 Beads and mix thoroughly. Incubate the mixture at 2-8℃ for 15 minutes.

1.3 Place the MaxSortin® L-Type Column (MS-CL01) into the MACS separator (130-090-976). Pre-wash the column twice with 1 mL Cell Sorting Buffer.

1.4 Remove the incubated sample from 2-8℃. Add 1 mL Cell Sorting Buffer, centrifuge at 1500 rpm for 5 minutes, and discard the supernatant.

1.5 Resuspend the pellet in 1 mL Cell Sorting Buffer and load the sample onto the L-Type Column. Allow the liquid to flow through naturally. Wash the column twice with 1 mL Cell Sorting Buffer each time, collecting the flow-through in a 15 mL centrifuge tube.

1.6 After the buffer has fully passed through, remove the column from the MACS separator and place it into a new 15 mL centrifuge tube. Add 3 mL Cell Sorting Buffer to the column and elute the cells using the plunger.

1.7 Centrifuge the collected flow-through at 1500 rpm for 5 minutes in a horizontal centrifuge.

1.8 Discard the supernatant and resuspend the cell pellet in 1 mL 1× DPBS. Count the cells and perform flow cytometry analysis.

Key Notes:

1. Ensure thorough mixing of beads and cells during incubation to improve sorting efficiency.
2. Increase bead volume appropriately when using this product for CD3+ cell depletion.
3. Prior to use, centrifuge the product in a 50 mL tube at 1000 rpm for 1 minute to pellet residual beads at the bottom.

Precautions

This product is intended for *in vitro* cell culture only. Do not use directly in clinical therapy.

Storage Conditions

2-8℃

Expiration Date

7 months

References

David M Barrett, Nathan Singh, Xiaojun Liu, Shuguang Jiang, Carl H June, Stephan A Grupp, Yangbing Zhao (2014). Relation of clinical culture method to T - cell memory status and efficacy in xeno graft models of adoptive immunotherapy. Cytotherapy, 16(5):619 - 630.