

## ActiveMax® Human BCMA $\mu$ Beads (non magnetic), premium grade (for cells)

Cat. No. MBS-C037

### ● Product Information

Product	Size	Amount
	2.5 mg	$2.5 \times 10^7$ beads
ActiveMax® Human BCMA $\mu$ Beads (non magnetic), premium grade (for cells)	10 mg (2.5 mg $\times$ 4)	$1.0 \times 10^8$ beads

### ● Product Description

ActiveMax® Human BCMA  $\mu$ Beads (non magnetic), premium grade (for cells) are uniform, polystyrene beads of 5.5  $\mu$ m coupled with Human BCMA Protein, expressed from human 293 cells (HEK293) and contains AA Met 1 - Ala 54 (Accession # Q02223-1).

ActiveMax® Human BCMA  $\mu$ Beads (non magnetic), premium grade (for cells) are produced under sterile manufacturing conditions (ISO 5) , and no animal- or human-derived components are used throughout the production process. It is produced under our rigorous quality control system that includes a comprehensive set of tests including sterility and endotoxin tests.

### ● Product Applications

ActiveMax® Human BCMA  $\mu$ Beads (non magnetic), premium grade (for cells) are designed to stimulate *in vitro* BCMA-specific CAR-T cells or UCAR-T cells, similar to the tumor cell lines that express human BCMA antigen. It can be used as follows:

- Evaluating the characteristics of CAR-T cells or UCAR-T cells.
- *In vitro* expansion of BCMA-specific CAR-T cells or UCAR-T cells.
- *In vitro* enrichment of BCMA-specific CAR-T cells or UCAR-T cells.

**This product is for research use only and not intended for therapeutic or diagnostic use.**

*The Product performance has been carefully validated and tested for compatibility for cell culture use or any other applications in the early preclinical stage. For use in clinical phases, we also offer a custom GMP protein service that tailors to your needs. We will work with you to customize and develop a GMP-grade product in accordance with your requests that also meets the requirements for raw and ancillary materials use in cell manufacturing of cell-based therapies.*

### ● Formulation

Lyophilized in PBS with 0.1% HSA, pH 7.4. Trehalose is added as protectant before lyophilization.

### ● Reconstitution

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the Certificate of Analysis.*

### ● Storage

This product is stable in storage under the following conditions:

- -20°C for 12 months in lyophilized state.
- -70°C for 3 months under sterile conditions after reconstitution.

Please protect from light and avoid repeated freeze-thaw cycles after reconstitution. Immediate use after reconstitution is highly recommended.

## ● General guidelines

It is recommended to reconstitute the lyophilized ActiveMax® Human BCMA  $\mu$ Beads (non magnetic), premium grade (for cells) with sterile deionized water to a stock solution of 5 mg/mL ( $5 \times 10^7$  beads/mL) under ISO 5 clean conditions. Separate into working aliquots and store at  $-70^\circ\text{C}$  immediately. Upon reconstitution, immediate use is recommended for best performance.

## ● Preparing $\mu$ Beads for use

Washing the ActiveMax® Human BCMA  $\mu$ Beads (non magnetic), premium grade (for cells) to remove trehalose from the formulation buffer before use.

1. Resuspend the BCMA  $\mu$ Beads in the vial (i.e. vortex for  $>30$  sec, or tilt and rotate for 5 min).
2. Transfer the desired volume of the BCMA  $\mu$ Beads to a sterile tube, centrifuge 3000g for 2 minutes, and discard the supernatant gently with a pipette.
3. Add an equal volume of sterile PBS buffer, or at least 1 mL, and mix (vortex for 5 sec, or keep on a roller for at least 2 min).
4. Centrifuge 3000g for 2 minutes, and discard the supernatant gently with a pipette.
5. Resuspend the washed the BCMA  $\mu$ Beads in the same volume of cell culture medium as the initial volume of the BCMA  $\mu$ Beads taken from the vial (Step 2).

## ● *In vitro* assay use

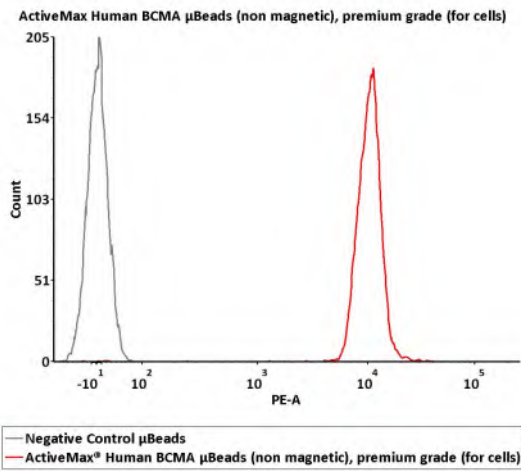
1. Activation assays: The  $\mu$ Beads are used as BCMA-target cells, and co-cultured with BCMA-specific CAR-T cells or UCAR-T cells at an optimized  $\mu$ Bead:cell ratio. The activation markers CD25 and CD69 should be analyzed by Flow cytometry after co-culture to monitor activation efficacy.
2. Expansion assays: The BCMA-specific CAR-T cells or UCAR-T cells are seeded in the culture plates before adding  $\mu$ Beads in a series of serial  $\mu$ Bead:cell ratios. After co-incubation, the cells was can be harvested for cell expansion assays.
3. Cytokine release assays: The BCMA-specific CAR-T cells or UCAR-T cells are co-cultured with the  $\mu$ Beads with a series of serial  $\mu$ Bead:cell ratios for 24~72hrs. The supernatants can be collected and analyzed using commercial cytokines assay kits.

*For use in vitro, ActiveMax® Human BCMA  $\mu$ Beads (non magnetic), premium grade (for cells) need to be optimized by the user according to their own experiments.*

## ● Contact Information

If you have any questions, please contact our technical support team at: [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com)

- **Conjugated human BCMA analyzed by FACS**



**Assay of human BCMA protein on the  $\mu$ Beads surface by Flow cytometry.** The human BCMA conjugated on the  $\mu$ Beads (Cat. No. MBS-C037) surface were fluorescently stained using PE labeled anti-human BCMA antibody and analyzed by flow cytometry.