

TheraPEAK ActiCell® Activation Reagent

General information

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I. Introduction

TheraPEAK ActiCell® Activation Reagent is a high performance product optimized for *in vitro* activation and expansion of T cells from enriched (or purified) T cells as well as Peripheral Blood Mononuclear Cells (PBMCs). TheraPEAK ActiCell® Activation Reagent is manufactured according to GMP standards and can be safely and confidently used in your clinical processes.

II. Features and benefits

TheraPEAK ActiCell® Activation reagent is designed for the *in vitro* activation and expansion of human T cells from PBMCs or enriched T cell populations. This product uses nanoparticles coated with anti-CD3 and anti-CD28 antibodies. It demonstrates high fold expansion while maintaining high cell viability for cell therapy applications. Some of the main features of TheraPEAK ActiCell® Activation Reagent are described below:

- Strong activation and large-fold expansion
- Biodegradable (can be removed by centrifugation)
- GMP compliant

III. Ordering information

Cat. no.	Product	Size
AC-TCA-4GMP	TheraPEAK ActiCell® Activation Reagent	4 mL

Table 1.

IV. Storage

TheraPEAK ActiCell® Activation Reagent should be stored at 2 to 8°C.

V. Instructions for use

The recommended cell concentration(s) for activation of fresh PBMCs or enriched T cells are listed in table 2 below.

Thaw cells in a 37°C water bath according to standard thawing protocols. Centrifuge the cells at 200 – 300 x g for 5 – 10 mins and remove the cryopreservation medium. Resuspend the cells in culture medium at densities below 5×10⁶ cells / mL. Allow the cells to recover overnight at 37°C at 5% CO₂ in the cell culture medium.

Note: The activation reagent is typically added either the same day as T cell isolation or after resting the cells overnight. Individual requirements depend on the customer's specific application needs.

TheraPEAK ActiCell® Activation Reagent can be used in combination with Retro- or Lentiviral transduction. It is recommended to transduce the T-cells 2 – 3 days after activation.

Enriched T cells	Cell concentration	Recommended dilution
Recommended	1×10 ⁶ / mL	1:25
Maximum	2×10 ⁶ / mL	
PBMCs	Cell concentration	Recommended dilution
Recommended	2×10 ⁶ / mL	1:25
Maximum	4×10 ⁶ / mL	

Table 2.

VI. Product specifications

Contents	4 mL
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Capacity	Up to 2×10^8 enriched T cells or up to 4×10^8 PBMCs in a maximal volume of 100 mL
Composition	Colloidal solution of iron-dextran nanoparticles conjugated to monoclonal CD3 and CD28 antibodies in PBS buffer stabilized with 4.0 – 6.5 mg/mL HSA and Poloxamer 188
Endotoxin content	< 2 EU/mL as determined by Limulus Amebocyte Lysate (LAL) limit assay (USP <85>)
Sterility	Sterility is tested and confirmed according to USP <71>
Storage	Store at 2 to 8°C

VII. Contact us

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VIII. Product use statement

Lonza Walkersville, Inc.

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