

Takara Bio Europe AB

Cellartis® DEF-CS™ COAT-1 User Manual

Cat. No. Y30012
(111518)

Takara Bio Europe AB

A Takara Bio Company

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I. Introduction

Cellartis DEF-CS 500 COAT-1 is a coating substrate optimized for use with Cellartis DEF-CS 500 Basal Medium (Cat. No. Y30011; not sold separately) and Cellartis DEF-CS 500 Additives (Cat. No. Y30016; not sold separately), for efficient expansion and scale-up manufacturing of human pluripotent stem (hPS) cells in a feeder-free and defined environment.

The basal medium and additives are sold as the Cellartis DEF-CS 500 Basal Medium with Additives (Cat. No. Y30017). The basal medium, coating substrate, and additives are sold as the Cellartis DEF-CS 500 Culture System (Cat. No. Y30010).

All procedures described in the manual are optimized for Cellartis hPS cell lines. If you wish to use Cellartis DEF-CS Culture Medium for other human induced pluripotent stem cells, please be aware that procedures and protocols may have to be adjusted.

This product should only be handled by persons who have been trained in laboratory techniques and should only be used in accordance with the principles of good cell culture practice. Takara Bio Europe AB recommends the use of media and reagents according to this manual. Takara Bio Europe AB cannot guarantee correct technical feedback on customer cultures unless the below culture instructions have been followed.

II. List of Components

4 ml Cellartis DEF-CS 500 COAT-1 (Cat. No. Y30012)

III. Additional Materials Required

The following materials are required but not supplied:

- PBS Dulbecco's with Ca²⁺ & Mg²⁺ (D-PBS +/+)
- Cell culture vessels, Tissue culture treated polystyrene surface
- General cell culture equipment used in cell culture laboratory

IV. Recommended Materials

The following materials are recommended but not supplied:

- Cellartis DEF-CS 500 Basal Medium with Additives (Cat. No. Y30017)
- Cellartis Human ES Cell Line 121 (SA121) Kit (Cat No. Y00025)
- Cellartis Human ES Cell Line 167 (SA167) Kit (Cat. No. Y00065)
- Cellartis Human ES Cell Line 181 (SA181) Kit (Cat. No. Y00105)
- Cellartis Human ES Cell Line 461 (SA461) Kit (Cat. No. Y00145)
- Cellartis Human iPS Cell Line 7 (ChiPSC7) Kit (Cat. No. Y00275)
- Cellartis Human iPS Cell Line 12 (ChiPSC12) Kit (Cat. No. Y00285)
- Cellartis Human iPS Cell Line 18 (ChiPSC18) Kit (Cat. No. Y00305)
- Cellartis Human iPS Cell Line 22 (ChiPSC22) Kit (Cat. No. Y00325)

V. General Considerations

A. Storage and Handling

Cellartis DEF-CS COAT-1 should be stored at 2–8°C; shelf life specified on product label.

B. Recommended Culture Medium

We strongly recommended using Cellartis DEF-CS COAT-1 together with Cellartis DEF-CS 500 Basal Medium with Additives (Cat. No. Y30017). For instructions on using COAT-1 with Cellartis DEF-CS 500 Basal Medium and Cellartis DEF-CS 500 Additives, see the Cellartis DEF-CS Culture System User Manual (Y30010) and/or the Cellartis DEF-CS 500 Basal Medium with Additives User Manual (Y30017), which are available at www.takarabio.com/manuals.

For use of COAT-1 with other stem cell media, see manufacturer's instructions. Takara Bio Europe AB cannot guarantee technical feedback for non-recommended media, and use of non-recommended reagents may require optimization.

VI. Coating Cell Culture Vessels

1. Dilute the required volume of Cellartis DEF-CS COAT-1 in D-PBS ++ before use. Make a 1:20 dilution.
2. Mix the diluted Cellartis DEF-CS COAT-1 solution gently and thoroughly by pipetting up and down.
3. Add the appropriate volume of diluted Cellartis DEF-CS COAT-1 solution to the cell culture flasks (use 0.1 ml/cm²), make sure the entire surface is covered.
4. Place the cell culture flasks for a minimum of 20 min in an incubator at 37°C ± 1°C, 5% CO₂, and >90% humidity or 0.5–3 hr at room temperature (RT, 15–25°C).
5. Aspirate Cellartis DEF-CS COAT-1 solution from cell culture flasks just before seeding of the cells.

Table I. Recommended volumes of COAT-1 for different cell culture vessels

Format	COAT-1 solution (1:20 dilution) (ml)	Format	COAT-1 solution (1:20 dilution) (ml)
6-well	1.5	T75 flask	7.5
T12.5 flask	1.25	T150 flask	15.0
T25 flask	2.5	T225 Flask	22.5

Notice to Purchaser

This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals. Also, do not use this product as food, cosmetic, or household item, etc.

This product may not be resold or transferred, modified for resale or transfer, or used to manufacture commercial products without written approval from Takara Bio Europe AB.

If you require licenses for other use, please contact us by phone at +46.(0)31.758.0900.

Your use of this product is also subject to compliance with any applicable licensing requirements as detailed in our catalogues, on our website at <http://www.takarabio.com>, on the label or other documentation accompanying the goods. It is your responsibility to review, understand and adhere to any restrictions imposed by such statements.

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