

CELL | ST™

Cell culture media
For better lives

CELLIST™ BASAL CHO MX Medium

CELLiST™ BASAL CHO MX Medium

Overview

CELLiST provides an 'all in one' solution for all your biologics manufacturing needs. CELLiST BASAL CHO MX growth medium provides everything your CHO cell line requires for stable, high yield protein production. CELLiST BASAL CHO MX cell culture medium was developed through a collaboration with KBI Biopharma and JSR Life Sciences, leveraging KBI's knowledge of upstream cell culture processes to customize media formulations for optimal performance. CELLiST media is completely chemically-defined, animal origin-free, and is suitable for use with any CHO cell line.

Properties

- Chemically-defined, protein-free medium without any animal-derived components, hydrolysates, extracts or other undefined components.
- Suitable for all CHO cell lines including CHO-M, CHO-GS, CHO-K1, CHO-S and CHO-DG44.
- Suitable for batch, fed-batch, and perfusion cell cultures, at any scale.
- High performance in both cell growth and protein production
- Test samples as well as bulk size orders are available
- Flexible application for easily replacing any existing media platform
- Manufactured in a cGMP-complid factory

Specifications

- BASAL CHO MX growth medium provides optimal balance of amino acids and other nutrients to ensure adequate cell growth and maximum productivity of your process. BASAL CHO MX Medium is completely chemically-defined and does not contain any animal or plant-derived components.
- Does not contain thymidine or hypoxanthine.
- Does not contain L-glutamine source.
- Does not contain sodium bicarbonate.
- Contains 6.2 g/L Glucose.
- Contains Poloxamer



Media Performance

Below are cell culture performance results for CELLIST BASAL CHO MX Medium and several other commercially-available media. The fed-batch process was performed using ambr15.

Cell Growth

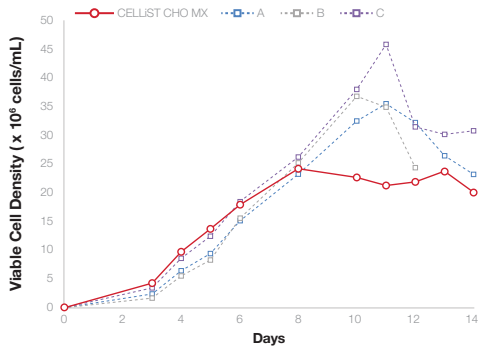


Figure 1. Viable cell density profiles during 14 days of culture.

Protein Production

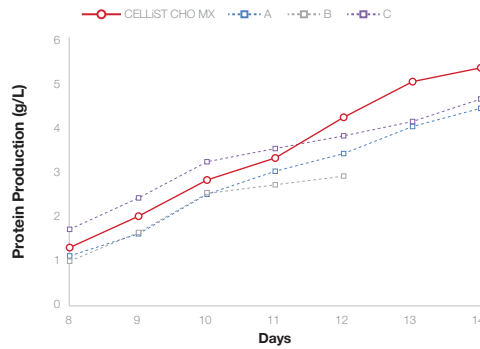


Figure 2. IgG titer profile. IgG concentration was measured by Cedex Bio HT.

Scalability

As can be seen below, CELLIST BASAL CHO MX Medium is suitable for use from small-scale to larger scale 200L bioreactors.

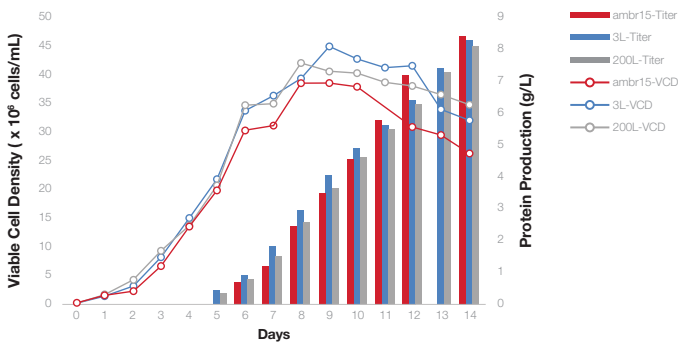


Figure 3. Viable cell density and IgG titer profiles. 3 kinds of bioreactor were used, which are ambr15, 3L bench-top reactor, and 200L bioreactor.



Liquid Medium preparation

CELLIST BASAL CHO MX Medium Reconstitution (1 L)

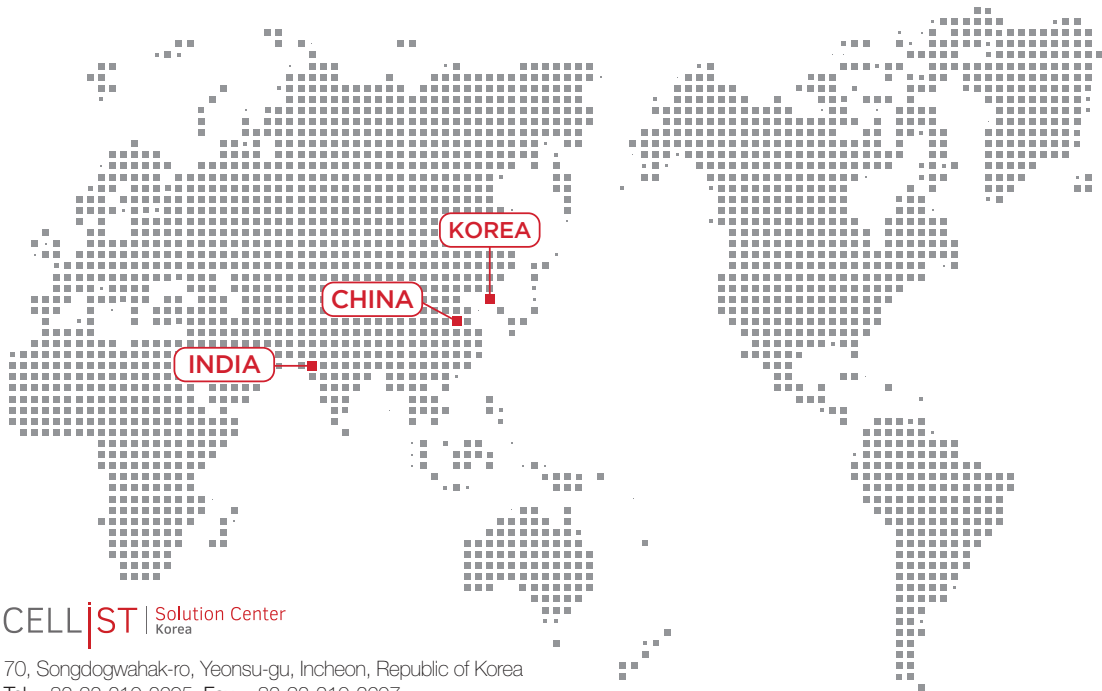
1. Add the entire amount of BASAL CHO-MX powder (23.0 g) to a 1-L beaker or flask containing 800 mL of cell culture grade water (room temperature).
2. Rinse the package with a small amount of cell culture grade water to remove traces of powder, and add to the solution.
3. Mix for 20 minute using magnetic stirrer. Do not heat the medium.
4. Add 2.1 g of sodium bicarbonate, or as desired.
5. Mix until dissolved completely (approximately 30 minutes).
6. Add cell culture grade water to the solution to bring it to the final volume (1L) and continue mixing for at least 10 minutes. To avoid fluctuations in pH, keep the vessel covered until the medium is filtered (next step).
7. Filter the medium in a clean bench, using a membrane filter with pore size of 0.2 to 0.22 μm in diameter (using a pressurized filter system).
8. Keep the prepared medium refrigerated (2 to 8°C) until use.
9. Right before use, add L-glutamine or AminoStable™ to the solution (2-6 mM final concentration is recommended). If required, add growth factor such as insulin or IGF-I.

***Notes:**

a. It is highly recommended to passage the cells at least 3 times in their original medium, prior to transferring into the new CELLIST Medium.

b. In order to reduce the stress faced by cells due to media switch process, it may help to add growth factor such as insulin or IGF-I (for example, 50 $\mu\text{g/L}$ of LONG R3 IGF-I) at the beginning of main culture stage.

CELLIST Global Customer Service Centers:



CELLIST | Solution Center Korea

70, Songdogwahak-ro, Yeonsu-gu, Incheon, Republic of Korea
Tel: +82-32-210-2695 Fax: +82-32-210-2607
Mail: yaron.silberberg.dk2@asv.ajinomoto.com

CELLIST | Solution Center India

Ahmedabad, India
Mail: parshadg.hirapara.ut3@asv.ajinomoto.com

CELLIST | Solution Center China

Shanghai, China
Mail: amino_acid@ajinomoto.com.cn

North America

JSR Life Sciences, LLC. 1280 North Matilda Ave. Sunnyvale, CA 94089
Tel: +1-408-543-8800 E-Mail: bioprocess.us@jsrlifesciences.com

Europe

JSR Micro NV. Technologielaan 8 B-3001 Leuven, Belgium
Tel: +32 (0)16 832 832 E-Mail: bioprocess.eu@jsrlifesciences.com