



Customized solutions for cell cultures.

Protocol

Production of **CHOlean Medium** from powder

Please note, this document may be periodically updated in order to ensure the most current practices are in place. It is the user's responsibility to ensure the latest release of this protocol is applied. Valid versions are made available via Xell's webshop.

Production of liquid medium with the CHOlean Medium Powder Kit

Material:

- We recommend preparing the whole Powder Kit in a single batch! For that, please adjust the amounts/volumes per L given in this protocol according to your container/batch size!
- CHOlean Medium Powder (22.26 g/L) Xell Cat. 1140-XXXXDPM
- approx. 1 L H₂O per L medium (WFI or equivalent quality)
- 1.80 g/L NaHCO₃ Ph. Eur.
- We recommend wearing a dust mask during preparation!



Visual control:

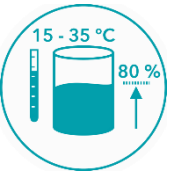


- A. Container **Sealed and without any damage.**
- B. Appearance **Free flowing powder** (record color).







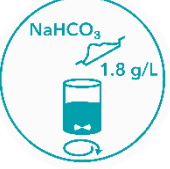

Check:






Color: _____

Procedure:

Check:

| | | | |
|----|---|--|--------------------------|
| 1. |  | Fill 0.8 L per 1 L final medium 15-35 °C water (WFI or equivalent quality) into the stirred tank/blending vessel. <i>Adjust volume according to batch size.</i> | <input type="checkbox"/> |
| 2. |  | Start the stirrer of the system. Due to foam formation during medium production, the vortex should not reach the stirrer. | <input type="checkbox"/> |
| 3. |  | Add 22.26 g/L of CHOlean Medium powder slowly to the stirred water. Avoid clumping. <i>Adjust volume according to batch size.</i> Note: We recommend preparing the whole powder kit at once. | <input type="checkbox"/> |

| | | | |
|-----|---|--|-----------------------|
| 4. |  | Rinse the empty medium container with a suitable amount of water (WFI or equivalent quality) and pour liquid into the stirred tank. | <input type="radio"/> |
| 5. |  | Stir for 30 minutes . Note: The powder will not completely dissolve at this stage at a pH range of 7.0 - 7.5. | <input type="radio"/> |
| 6. |  | Titrate with 8 M NaOH to pH 8.5 - 8.7 (usually between 1.0 to 1.4 mL/L of 8 M NaOH is required) and adjust volume to batch size. Note: The powder should be completely dissolved, but the solution should be remain turbid. | <input type="radio"/> |
| 7. |  | Stir for further 30 minutes . Note: The powder will not completely dissolve at this stage. | <input type="radio"/> |
| 8. |  | Titrate with 6 M HCl to pH 6.0 - 6.5 (usually between 1.5 to 2.5 mL/L of 6 M HCl is required) and adjust volume to batch size. Note: The powder should be completely dissolved and the solution should be clear. | <input type="radio"/> |
| 9. |  | Stir for further 30 minutes . Note: The powder will not completely dissolve at this stage. | <input type="radio"/> |
| 10. |  | Add 1.80 g/L NaHCO₃ to the stirred tank. Adjust volume according to batch size. | <input type="radio"/> |
| 11. |  | Stir for 5 - 10 minutes . Note: The powder will be completely dissolved at this stage at a pH range of 6.8 - 7.5. | <input type="radio"/> |

| | | | |
|-----|---|--|--|
| 12. |  | <p>If needed titrate with 8 M NaOH or 6 M HCl to pH 7.1 - 7.6.</p> <p>Note: <i>The powder should be completely dissolved and the solution should be clear.</i></p> | <input type="radio"/> |
| 13. |  | <p>Add an appropriate volume of water (WFI or equivalent quality) to reach the final volume.</p> <p><i>Final volume depends on batch/container size!</i></p> | <input type="radio"/> |
| 14. |  | <p>Stir for 5-10 minutes.</p> | <input type="radio"/> |
| 15. |  | <p>Check pH (pH 7.1 - pH 7.6) and osmolality (300 mOsmol/kg ± 15 mOsmol/kg).</p> | <input type="radio"/> <input type="radio"/> |
| 16. |  | <p>The Medium can now be sterile filtered (0.45 µm + 0.1µm) and bottled.</p> | <input type="radio"/> |

Change History:

| Revision | Date | Author | Comment/Description |
|----------|------------|--------|--|
| 01-02 | n/a | n/a | Initial version |
| 03 | 03.12.2021 | SST | Addition of change history |
| 04 | 18.03.2022 | AWU | Changed procedure, due to formulation correction |
| | | | |
| | | | |
| | | | |

www.xell.de
info@xell.de

Xell AG
Alte Verler Str. 1
33689 Bielefeld
Germany

For further information or assistance
contact us.

Fon: +49 (0)521 96989-200
Fax: +49 (0)521 96989-201

