

HyClone™ Cell Boost™ 4 powder supplement

Instructions for Use

Product description

HyClone™ Cell Boost™ 4 powder is a chemically defined, powdered cell culture supplement, without L-glutamine. The supplement is hydrolysate-free, protein-free, and animal-derived component free (ADCF).

Safety

For use and handling of the product, refer to the Safety Data Sheet on [cytiva.com](https://www.cytiva.com).

Storage

Store the product in a tightly sealed container, in a dry environment, and protected from light at 2°C to 8°C.

Shelf life

The following table gives information about the shelf life of the product when stored in a tightly sealed container at 2°C to 8°C and protected from light.

Supplement format	Shelf life
Powder	36 months
Liquid	12 months

Note: Refer to the product label for the expiry date.

Disposal

Dispose contents and container in accordance with all local and national regulations.

Preparation of the liquid supplement

The following sections describe the required materials and suggested protocol to hydrate the product from powder. The instructions apply for all filling sizes.

Required materials

Required equipment and materials include:

- Mixing vessel
- Stirrer

Note: A magnetic stirrer bar can be used for small-scale reconstitutions up to 5 L. An overhead or bottom-mounted impeller is recommended for larger volumes.

- Calibrated pH meter
- Calibrated osmometer

- Cell culture-grade water
- 0.2 µm filter
- Container for hydrated medium

Hydrate the powder supplement

Follow the steps below to hydrate the product from powder.

Step	Action				
1	Fill a clean mixing vessel up to 90% of the final volume with cell culture-grade water at ambient temperature (18°C to 25°C). For example, start with 900 mL of water to prepare 1 L of hydrated supplement. Start stirring. Tip: <i>To improve solubilization time, use water between 22°C to 25°C.</i>				
2	Add 35 g/L of Cell Boost 4 powder to the mixing vessel. Mix for 20 to 30 minutes until dissolved.				
3	Adjust the pH to between 6.9 and 7.4 by drop-wise addition of 5 N NaOH. After adjusting, continue stirring for an additional 20 minutes to make sure that all components are completely dissolved.				
4	Adjust to the final volume with cell culture-grade water, and stir for an additional 10 minutes.				
5	Measure and record the final pH and osmolality. Expected values: <table> <tr> <td>pH</td><td>6.9 to 7.4</td></tr> <tr> <td>Osmolality</td><td>250 to 306 mOsmol/kg</td></tr> </table>	pH	6.9 to 7.4	Osmolality	250 to 306 mOsmol/kg
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Osmolality	250 to 306 mOsmol/kg				
6	Sterilize immediately by membrane filtration with a 0.2 µm filter. Use a low-binding filter membrane type, such as PVDF, PES, or cellulose acetate. The supplement is a pale-yellow liquid.				
7	Store the hydrated supplement in a sealed container protected from light at 2°C to 8°C until use. See <i>Shelf life</i> for more information.				

Technical support

Contact your local Cytiva representative to learn more about the services we offer. To find a certificate or SDS for a specific product, visit [cytiva.com/certificates](https://www.cytiva.com/certificates).



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