

HyClone™ VaccineXpress™ medium

Instructions for Use

Product description

HyClone™ VaccineXpress™ medium is a cell culture medium that is serum-free (SF), animal-derived component-free (ADCF), and human-origin free. The medium is intended for high-density growth and maintenance of kidney-derived cell lines such as Vero cells for the production viral vaccines. This medium is optimized for growing attachment-dependent Vero cells with microcarriers, facilitating the production of vaccines for influenza, Zika, Dengue, and RSV. The medium is available in ready-mixed liquid and powder formats and suitable for small- to large-scale bioprocess applications.

The table below shows which additives are present in the different product formats on delivery.

Product format	Additive presence			
	L-glutamine	Sodium bicarbonate	Poloxamer 188	Phenol red
Liquid	N	Y	N	N
Powder	N	N	N	N

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 at 2°C to 8°C in a tightly sealed container, protected from moisture and light.

Shelf life

The following table lists the shelf life of the product when stored under the conditions specified above.

Product format	Shelf life
Powder	36 months
Liquid ¹	6 months

¹ Without L-glutamine added.

Note: For the expiry date, refer to the product label.

Disposal

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

Medium preparation

This section contains information on how to prepare the medium.

Liquid medium

Liquid medium is ready to use directly from the bottle. It is recommended to add 4 mM sterile-filtered L-glutamine just before use.

Reconstitution of the powder medium

The following sections describe the required equipment and materials and the suggested protocol for hydrating the powder medium. The instructions apply to all filling sizes.

Required equipment and materials

Required equipment and materials include:

- clean mixing vessel
- high-quality purified water
- dry powder medium
- stirrer

Note: For volumes up to 5 L, a magnetic stirrer can be used. For larger volumes, an overhead or bottom-mounted impeller is recommended.

- sodium bicarbonate
- calibrated pH meter
- calibrated osmometer
- container for hydrated medium
- low-binding membrane filter (0.2 µm), such as polyvinylidene difluoride (PVDF), polyethersulfone (PES), or cellulose acetate

Hydrate the powder medium

Follow the steps below to hydrate the product from powder.

Note: All volume measurements are based on the final concentrated volume.

Step	Action
1	Fill a clean mixing vessel to 80% of the final preparation volume with high-quality purified water at a temperature of 20°C to 25°C. For example, start with 800 mL of high-quality purified water to prepare 1 L of hydrated medium.
2	While stirring, add 11.65 g/L dry powder medium to the mixing vessel. Stir 10 to 15 min or until dissolved.
3	Add sodium bicarbonate (2 g/L). Note: <i>If the hydrated medium is to be stored short term before use, also add L-glutamine (4 mM final concentration) now. If the hydrated is to be stored for longer, add the L-glutamine just before use.</i> Result: Stir until dissolved.
4	Adjust to pH 7.0 to 7.2 with HCl or NaOH as required.
5	Top up the mixing vessel with high-quality purified water to the final preparation volume. Stir the solution for 15 min.
6	Measure and record the final pH and osmolality. Adjust if necessary. Expected values: - pH: 7.0 to 7.2 - osmolality: 280 to 310 mOsmol/kg
7	Sterile-filter the solution into the desired container using a 0.2 µm filter.
8	Store the hydrated medium in a tightly sealed container at 2°C to 8°C, protected from moisture and light until use. Note: <i>Unopened hydrated medium without L-glutamine is stable for up to 6 months.</i>

Ordering information

Product	Pack size	Product code
HyClone VaccineXpress medium*, dry powder	10 L HDPE bottle	SH31127.01
	50 L HDPE bottle	SH31127.02†
	100 L HDPE bottle	SH31127.03†
	500 L polybag/pail	SH31127.04†
HyClone VaccineXpress medium, liquid	1 L PETE bottle	SH31126.01
	10 L bioprocess container	SH31126.02
	20 L bioprocess container	SH31126.03†
	50 L bioprocess container	SH31126.04†
	100 L bioprocess container	SH31126.05†
Related product		
L-glutamine 200 mM	100 mL bottle	SH30034.01
	500 mL bottle	SH30034.02

* Packaging contains enough powder to prepare the liquid medium volume stated on the label.

† Item is made to order. Lead times and minimum order quantities apply.

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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