

# Vero Cell Propagation Medium

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**Protocol ID:** BUF-VERO-PROP-001

**Version:** v1.1

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## Purpose

This medium is used for routine propagation of Vero cells for LCMV focus-forming assays and other virological applications.

## Components (Final volume: 500 mL)

Component	Amount	Final concentration / note
DMEM (high glucose, with L-glutamine, phenol red)	to 500 mL	Base medium
Heat-inactivated FCS/FBS	50 mL	10% (v/v)
Penicillin–Streptomycin (100×; 10,000 U/mL penicillin, 10,000 µg/mL strep)	5 mL	1× final
2-mercaptoethanol (100× stock; see lab stock sheet for concentration)	0.5 mL	1× final (typical 50–100 µM range)

### Warning

For Vero cell culture, always use **DMEM-based medium**. Do **not** confuse this with RPMI-based media used elsewhere in the plaque/FFA protocol (e.g. for sample dilution).

## Preparation

1. In a sterile biosafety cabinet, add ~400 mL of DMEM to a sterile 500 mL bottle.
2. Add:

- 50 mL heat-inactivated FCS/FBS.
  - 5 mL Penicillin–Streptomycin (100× stock) to achieve 1× final.
  - 0.5 mL of the 100× 2-mercaptoethanol stock (check your lab stock sheet for the exact stock concentration and resulting final  $\mu\text{M}$ ).
3. Top up with DMEM to a final volume of **500 mL**.
  4. Mix gently by inversion.
  5. If any component was added from a non-sterile container, sterile-filter the complete medium (0.22  $\mu\text{m}$  filter) into a fresh sterile bottle.
  6. Label with:
    - “Vero propagation medium (DMEM + 10% FCS + 1× P/S + 2-ME)”
    - Date of preparation
    - Initials
  7. Store at **4°C** for up to **4 weeks**, protected from light.

## Use

- Warm medium to **37°C** before use with cells.
- Discard medium if there is any sign of contamination (turbidity, threads, pH shift) or if it is past the defined expiry (4 weeks from preparation).

## Version history

Version	Date	Author	Changes
v1.0	2025-12-01	Dillon Corvino	Initial Quarto buffer document (MEM-based formulation).
v1.1	2025-12-02	Dillon Corvino	Updated to DMEM + 10% FCS + 1× P/S + 2-ME, aligned with lab protocol.