

Introducing Diploid Serum-Reduced Medium (SRM)

The next generation of human diploid vaccine development

Switch to a serum-reduced medium for human diploid cells without sacrificing cell growth or virus expression. Gibco™ Diploid SRM is a combination of two media to support vaccine manufacture with human diploid cells (e.g., MRC-5, WI-38, KMB17, 2BS, and chicken embryo fibroblasts (CEFs)). Each kit supports two important parts of the vaccine production process: cell growth and virus production.



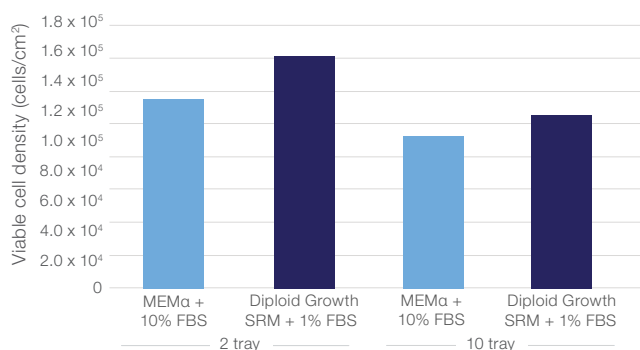
Gibco™ Diploid Growth Medium Kit

This kit is for cell growth as well as scale-up for vaccine production. It supports growth of human diploid cells with only 1% to 2% serum. When paired with Gibco™ Diploid Production Serum-Free Medium (SFM), this kit provides comparable growth and virus titers to conventional medium supplemented with 5–10% serum.

Gibco™ Diploid Production Medium Kit

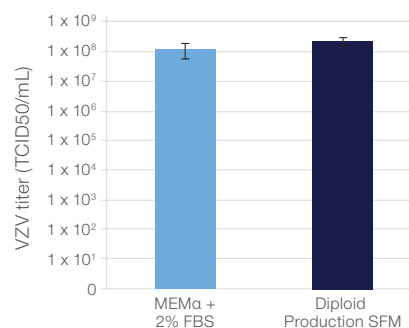
This kit is for virus expression post-infection of the cell culture. It is designed to support virus production with human diploid cells without adding serum. When used with Gibco™ Diploid Growth SRM, this kit provides comparable growth and virus titers to conventional medium supplemented with serum or human albumin.

Growth of MRC-5 cells in Diploid Growth SRM



MRC-5 cells were seeded at 1.5×10^4 cells/cm² in multilayer cell culture chambers, incubated for 4 days, and trypsinized.

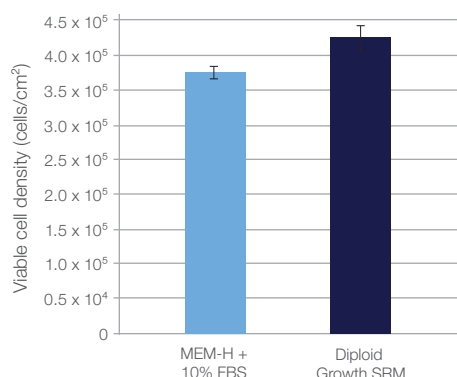
Varicella zoster virus production



MRC-5 cells were seeded at 1.5×10^4 cells/cm² for production, incubated for 4 days, infected with varicella zoster virus (VZV) at MOI 0.01, and harvested 3 days post-infection. Titers were determined with TCID50.

Gibco Diploid SRM is available in a dry format (DPM) and may be requested as a non-cataloged special order in liquid format.

Chicken embryo fibroblasts



For vaccines such as MMR, some components may be produced in human diploid cells and others in chicken embryo fibroblasts. CEF cells can be cultured in the Diploid Growth SRM without the addition of any serum post trypsinization. Thus, the implementation of the Diploid Growth SRM could consolidate the growth medium needs for all components of a manufacturer of MMR or MR vaccines.

Cell growth of CEFs seeded at 1.5×10^5 cells/cm² after a fresh harvest from eggs. Cells were counted 4 days post-inoculation. MVA viral vectors have also been produced in CEFs.

Media and supplements

Product	Unit size	Price	Cat. No.
Diploid Production Serum-Free Medium (SFM)	10 L	\$850.00	A3969001
	100 L	\$5,500.00	A3969002
Diploid Growth Serum-Reduced Medium (SRM)	10 L	\$850.00	A3968901
	100 L	\$5,500.00	A3968902
Glucose Solution	50 mL	\$32.23	A2494001
Fetal Bovine Serum, qualified, New Zealand	100 mL	\$291.00	10091130
	500 mL	\$1,078.00	10091148
	1,000 mL	\$2,090.00	10091150
Fetal Bovine Serum, qualified, United States	100 mL	\$171.00	26140087
	500 mL	\$634.00	26140079
	1,000 mL	\$1,228.00	26140095

Reagents

Product	Unit size	Price	Cat. No.
TrypLE Select Enzyme (1X), no phenol red	100 mL	\$38.31	12563011
	500 mL	\$126.00	12563029
TrypLE Select Enzyme (10X), no phenol red	100 mL	\$140.00	A1217701
	500 mL	\$548.00	A1217702
	20 x 100 mL	\$2,040.00	A1217703
Defined Trypsin Inhibitor	100 mL	\$43.99	R007100
DPBS, no calcium, no magnesium	1,000 mL	\$36.19	14190136

Find out more at thermofisher.com/diploid

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