

TECHNICAL INFORMATION

Catalog Number: 2013454, 2013426

MP-MRC-5™ Serum-Free Cell Culture Medium

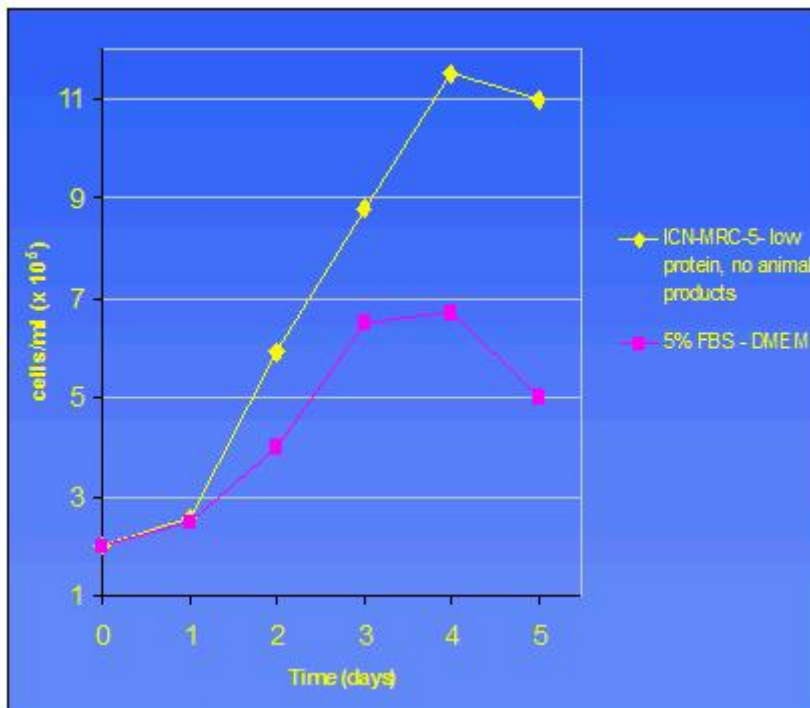
MP-MRC-5™ medium was developed specifically for microcarrier culture of MRC-5 cells in production systems. It is completely animal component-free and contains very little protein. MP-MRC-5™ achieves growth rates superior to standard serum-supplemented media. Adaptation from serum-supplemented media is not necessary.

Benefits:

- Complete, just add L-glutamine
- Serum-free, animal component free
- Very low protein (< 90 ng/ml)
- Specific for MRC-5 cells

Composition:

- Inorganic salts
- Essential and non-essential amino acids
- Peptide supplements of plant origin
- Vitamins
- Recombinant human protein and growth factors
- Other organic compounds
- Trace elements



Growth profile of MRC-5 cells in both MP-MRC-5™ media and in 5% FBS-supplemented DMEM in agitated cell culture. Cells were grown on microcarrier beads (2 g/L, 100 ml spinner flasks) in both 5% FBS-DMEM and in MP-MRC-5™ medium. The flasks were inoculated with an initial cell density of 2.0×10^5 cells/ml and then incubated at 37°C with a 10% CO₂ overlay. 1 ml samples were taken each day to determine cell density by the trypan blue exclusion method using a hemocytometer.

Storage: Store at +4°C in the dark. Do Not Freeze.

Procedure for Use:

- Pre-warm to 37°C
- Add warm L-glutamine to the desired concentration (typically add 40 ml of a 200 mM L-glutamine solution [MP catalog number 1680146 and 1680149] per 1000 ml).
- Ready to use

MP recommends that the media be aliquoted for use (~100 ml at a time) since repeated re-heating causes decrease in product performance.

Adaptation of cells to MP-MRC-5™ serum-free medium:

The serum-free formulation provides a complete medium for the growth of the MRC-5 cell line. This formulation is intended for use as a production medium to support the growth of MRC-5 cells in agitated (microcarrier) cultures.

Cell Passaging:

The following protocol is suitable for the growth of MRC-5 cells in agitated culture using MP-MRC-5™ media.

- Anchorage-dependent cells such as MRC-5 grow well in a medium such as DMEM supplemented with 5% calf serum. This can be used as a starting culture before placing into the serum-free medium (SFM).
- Culture the cells in the serum-based medium for a few passages.
- Sub-culture the cells directly into an agitated culture using the MP-MRC-5™ medium. The starting density should be approximately $\sim 1\text{-}2 \times 10^5$ cells/ml with ~ 2 g/L microcarrier beads.

Availability:

Catalog Number	Description	Size
2013054 2013026	MP-BHK™ media for BHK cultures in stationary or agitated culture	500 ml 1 L
2013154 2013126	MP-CHO™ media for CHO cultures	500 ml 1 L
2013254 2013226	MP-Hybridoma™ media for Hybridoma cultures. Superior MAb production.	500 ml 1 L
2013354 2013326	MP-MDCK™ media for MDCK cultures	500 ml 1 L
2013454 2013426	MP-MRC-5™ media for MRC-5 cell growth in agitated culture.	500 ml 1 L
2013554 2013526	MP-Vero™ media for Vero cultures in stationary or agitated culture	500 ml 1 L
2030046 20300M2	CellVation™ Cryopreservation Medium - Serum and DMSO free	20 ml 60 ml

Microcarrier Beads Available:

Catalog Number	Description	Size
152432	RapidCell™ C, 90-150 um, 1.02 gm/cm ³	5 gm 25 gm 100 gm
152433	RapidCell™ C, 150-210 um, 1.02 gm/cm ³	5 gm 25 gm 100 gm
152434	RapidCell™ C, 90-150 um, 1.03 gm/cm ³	5 gm 25 gm 100 gm
152349	RapidCell™ C, 150-210 um, 1.03 gm/cm ³	5 gm 25 gm 100 gm
152435	RapidCell™ G, 90-210 um, 1.02 gm/cm ³	5 gm 25 gm 100 gm
152436	RapidCell™ G, 150-210 um, 1.02 gm/cm ³	5 gm 25 gm 100 gm
152350	RapidCell™ G, 150-210 um, 1.03 gm/cm ³	5 gm 25 gm 100 gm
152438	RapidCell™ P, 90-150 um, 1.02 gm/cm ³	5 gm 25 gm 100 gm
152439	RapidCell™ P, 150-210 um, 1.02 gm/cm ³	5 gm 25 gm 100 gm

152351

RapidCell™ P, 150-210 um, 1.03 gm/cm³

5 gm
25 gm
100 gm