

## Datasheet

# Panserin MDCK

### Serum-free Medium for Optimized Growth of MDCK Cells

Product	Description	Catalogue-No.	Size
Panserin MDCK	Serum-free medium for the cultivation of MDCK cells	P04-71105	500 ml
Panserin MDCK powder Panserin MDCK supplement (100x) for 10 Liter	Serum-free medium for the cultivation of MDCK cells	P03-711010P P03-711010S	10 Liter 100 ml

#### Product description

Panserin MDCK is a complete serum-free ready-to-use medium for the cultivation of MDCK cells (Madin-Darby canine kidney cells, epithelial cells from normal adult female cocker spaniel) in an adherent culture.

#### Storage conditions

Recommended storage conditions:

Panserin MDCK medium:	2-8°C, store in the dark
Panserin MDCK powder:	2-8°C, store in the dark
Panserin MDCK supplement (100x):	-20°C, store in the dark
Stability:	1 year from date of production

#### Composition

Panserin MDCK is based on DMEM/F12. It contains trace elements, albumin, cholesterol, soy lipids, vitamins, hormones and attachment factors.

#### Suitability

Serum-free cultivation of MDCK cells in adherent culture (e.g. roller bottles).

FOR RESEARCH USE ONLY!

Not approved for human or animal diagnostic or therapeutic procedures.

#### Special advantages

Highly enriched medium for rapid growth and cultivation of adherent MDCK.

#### General Information

For the reconstitution of powder media, water for cell culture (Cat. No. P04-991000) or bidistilled, deionized, pyrogen-free water should be used. It is recommended to dissolve the whole content of a package at once. If only part of the package is used, the residual powder has to be stored in the dark at 2-8°C and under dry conditions because of its highly hygroscopic characteristics. Our powder is weighed out exactly for the given volume.

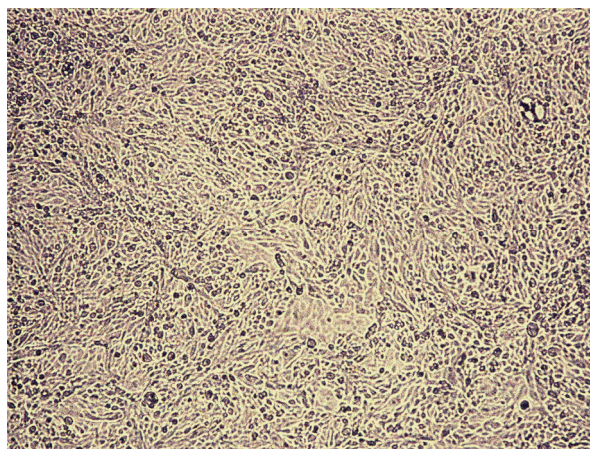
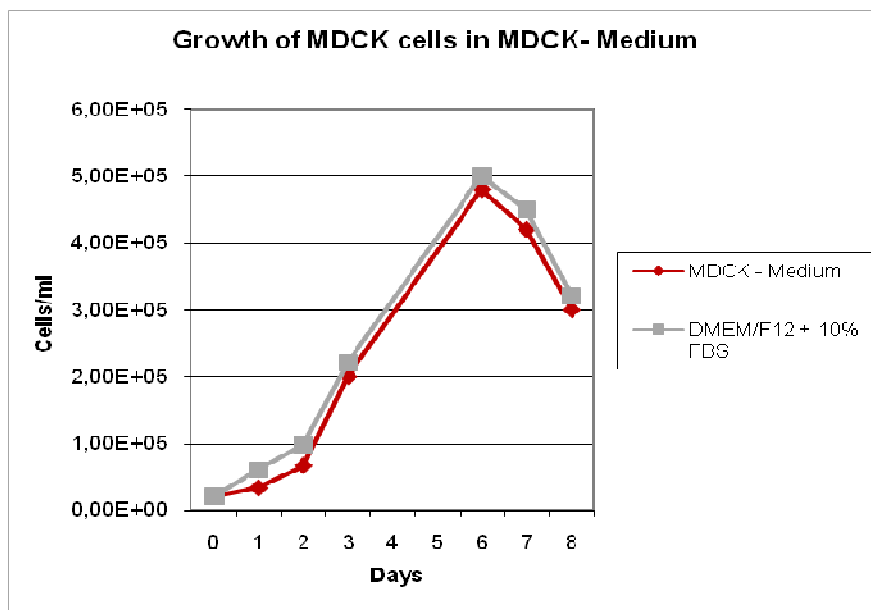
Prepare only 1x liquid media from PAN-Biotech powder media and supplement. The contained amino acids can form difficultly soluble salts and precipitates in more concentrated solutions.

#### Preparation of sterile filtered liquid media Panserin MDCK from powder and supplement

- Thaw frozen supplement.
- Add powdered medium to room temperature bidistilled water (about 80% of final volume) and dissolve under constant stirring. Rinse the inside of the package to remove all traces of powder and add this to the water. Stir until no sediment is left.
- Add the calculated amount of the 100x supplement to the medium (1 liter to 99 liter medium)
- Add sodium bicarbonate (2.3 g/L) and stir until it is completely dissolved. Avoid extensive mixing because this promotes loss of bicarbonate by release of CO<sub>2</sub>.
- Check the pH and, when necessary, adjust it by slowly adding 1 N HCl or 1 N NaOH under stirring to about 0.2 units below the desired value. The pH value may rise about 0.1 to 0.3 units because of CO<sub>2</sub> release during filtration.
- Add distilled water up to the final volume and filtrate the liquid medium into sterile containers using a 0.22 µm filter.
- The prepared medium should be stored at 2-8°C and protected from light.

**Instructions for Use**

- In many cases switching from serum-containing medium to Panserin MDCK without a special adaptation procedure can be performed.
- For cells, which do not allow a direct switch, we recommend a primary culture with Panserin MDCK supplemented with serum (FBS) and a gradual reduction of serum into the direction to serum-free Panserin MDCK cultivation.
- This gradual adaptation is supported by higher seeding density (20,000 cells/cm<sup>2</sup>) or by using reduced serum concentrations, after an attachment phase of adherent cells with a higher content of FBS.
- For the successful transfer to serum-free culture, the vitality of the cells is an important factor. Therefore use cells from the logarithmic growth phase. From our experience, the cultivation of cells from the stationary phase will have lower chances of success.
- With adherent cells it should be ensured, if trypsin is used for separation, that the enzyme is inactivated by a trypsin-inhibitor, because in a serum-free culture the neutralizing effect of FBS is no longer present.



**MDCK cells in Panserin MDCK**

**Technical Support**

For technical support, questions or remarks please contact your local PAN-Biotech partner or the technical department of PAN-Biotech via email ([info@pan-biotech.com](mailto:info@pan-biotech.com)) or phone +49-8543-601630.