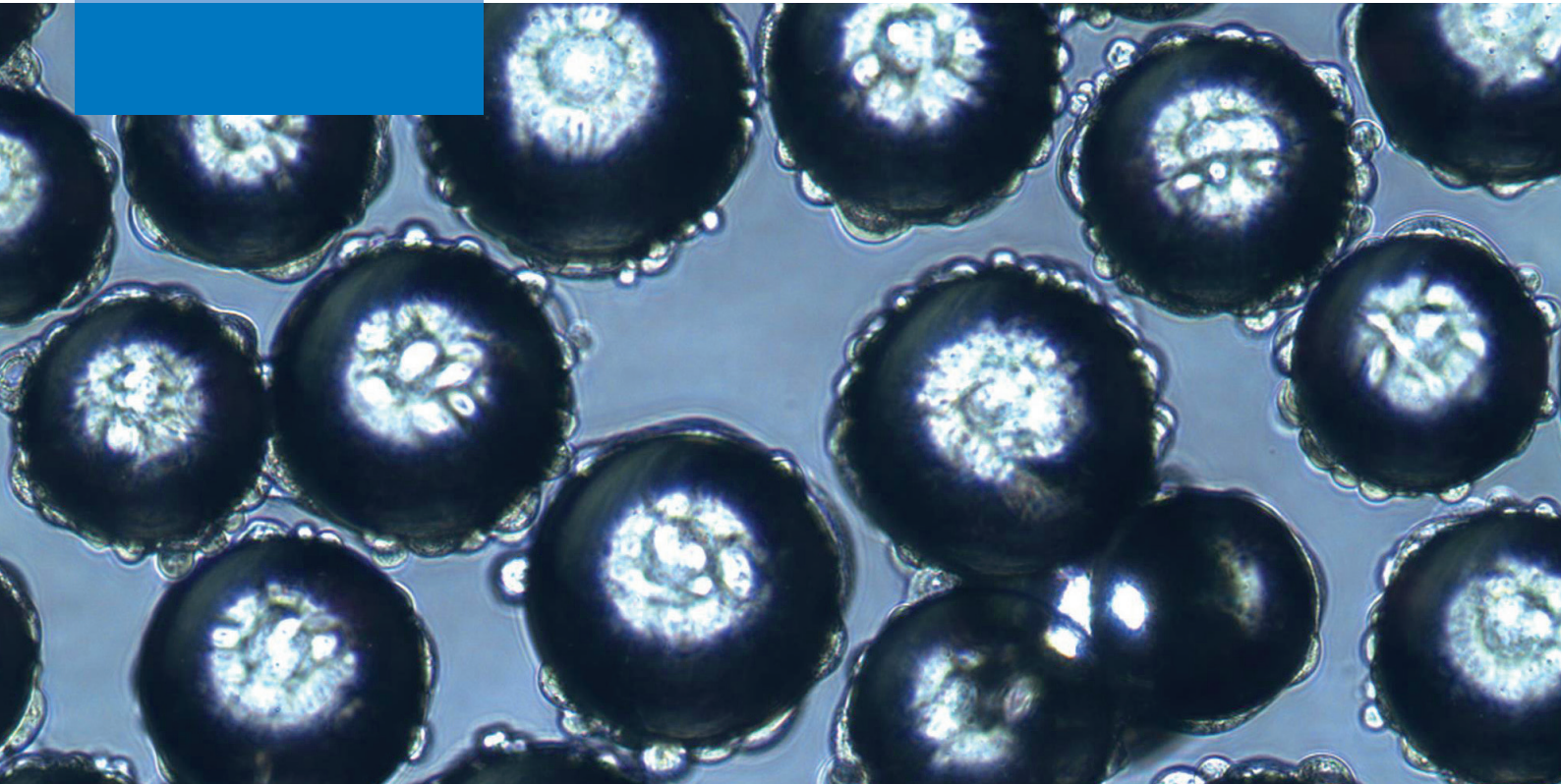


## ProMDCK™ 2D Media For NAO Culture of MDCK Cells



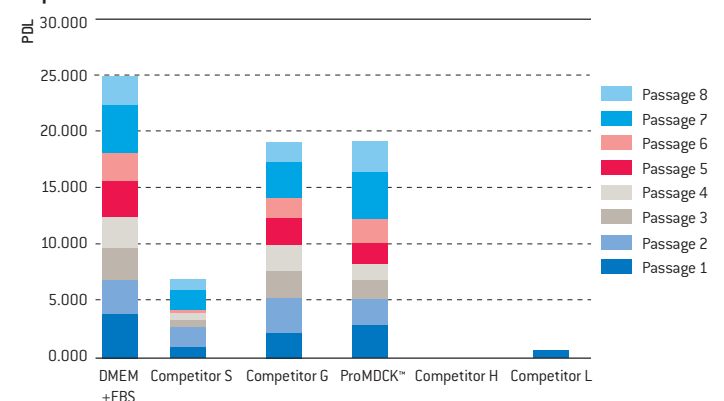
### High Performance Media for Vaccine Production

The need for more pandemic vaccines increases, and vaccine production is shifting from egg-based to cell-based technologies. As a result, researchers need a medium that supports MDCK expansion in planar culture and optimal growth along with virus infection on microcarriers.

#### ProMDCK™ 2D Medium provides:

- A completely defined, serum-free, non-animal origin media
- Supports the proliferation of MDCK cells in planar culture
- Easy transition from 2D to 3D MDCK cultures
- Optimal cell proliferation compared to competing media products

#### Superior Proliferation with ProMDCK™ Media



MDCK serum-free media from multiple competitors were tested side-by-side; the total number of population doublings per passage were analyzed through 8 passages. It was determined that ProMDCK™ Media was superior to competition, out performed only by serum use.

Historically MDCK cells have been used as models for studying epithelial cells development and function. Many studies have shown that MDCK cells are very useful for rapid membrane permeability screening<sup>1</sup>.

In the 2000s, it was determined that serum-free media can be used for culturing MDCK cells. With the removal of serum you are reducing variables, allowing for larger production volumes, and growth rate still exceeds that of egg-based vaccine production.

Today many companies use MDCK cells for vaccine production. Historically hen eggs were used for vaccine production; however due to the egg supply being difficult to maintain and slow growth rate, cell-based vaccine production has increased. MDCK cells have been found to be susceptible to the following viruses:

- Human Coxsackievirus B 5
- Reovirus type 2 and 3
- Adeno-associated virus 4
- Vaccinia virus
- Vesicular stomatitis virus
- Adeno-associated virus 5
- Human Coxsackievirus B3
- Human Coxsackievirus B 4
- Human poliovirus 2
- Influenza A
- Influenza B

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## References

1. Simmons NL: Cultured monolayers of MDCK cells: a novel model system for the study of epithelial development and function. Gen Pharmacol 1982, 13(4):287-291