



An effective media for difficult-to-culture mouse epithelial cells

A novel cell culture media formula that facilitates the expansion and cultivation of typically challenging mouse keratinocytes.

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Sensitive skin cells

The skin is the largest organ in the body and as a barrier plays critical roles in defense against infection, prevention of water loss and protection against environmental factors. Due to their essential functions, keratinocytes are the subject of high research interest. Unfortunately, these cells are exceptionally sensitive to various external factors (particularly the presence of calcium and potassium), which has made them particularly challenging to maintain and culture. Dr. Rebecca Morris has developed a media formulation that is highly effective for expansion of epidermal keratinocytes from mice (including adult mice). This unique, low-calcium, low-potassium media (titled "Morris-2 Media") uses chelated fetal bovine serum and has been found to be more effective compared to several other commercially-available medias and published recipes. Morris-2 media has the capability to facilitate epidermal research by greatly simplifying the culture of keratinocytes.

Phase of Development

Media formulation has been used successfully to culture mouse keratinocytes frequently over the course of multiple years.

Key Benefits & Differentiators

- **Facilitates epidermal research:** Simplifying the often frustrating process of culturing mouse keratinocytes provides a more reliable source of cells and allows experimental studies to progress more predictably.
- **Highest performing mouse keratinocyte media:** Experimentally compared to other medias (both commercial and non-commercial), Morris-2 media was reliably the most effective.

Applications

- Culture media
- Keratinocyte expansion and cultivation
- Skin and skin cancer research

Researchers

Rebecca Morris, PhD

Professor, The Hormel Institute

[External Link](http://www.hi.umn.edu) (www.hi.umn.edu)

Publications

[*Hmga2 translocation induced in skin tumorigenesis*](#)

Oncotarget, 2017; 8:30019-30029

Ready for Licensing

This technology is now available for license! The University is excited to partner with industry to see this innovation reach its potential. Please contact us to share your business' needs and your licensing interests in this technology.

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