



Bovine Macrophage Cell Line

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Assigned to WARF as biological material.

The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in developing a bovine macrophage line that proliferates in cell culture.

OVERVIEW

Macrophages are white blood cells that ingest foreign material and play a crucial role in the immune system. Presently, there is no bovine macrophage cell line available for research and testing purposes, according to the ATCC. The closest available models are a macrophage cell line derived from a mouse tumor, and a bovine cell line often referred to as BoMac. The latter is not ideal because it is related to dendritic cells, lacks macrophage biomarkers and is weakly phagocytic.

THE INVENTION

UW-Madison researchers have developed the first proliferating bovine cell line proven to have features of monocytic/macrophage lineage. The new cell line is useful for bovine disease research, such as studying host-parasite relationships from an immunological perspective.

The new line was discovered when some of the primary macrophage cells isolated from bovine blood samples began spontaneously proliferating under standard cell culture conditions. They were identified as a well-differentiated macrophage cell line based on morphological features and the presence of a macrophage surface marker, which was found in 99 percent of the cells. They also tested positive for markers confirming their monocytic and mesenchymal origins, respectively.

APPLICATIONS

- Bovine macrophage cell line
- Studying immunological and infectious diseases

THE WARF ADVANTAGE

Since its founding in 1925 as the patenting and licensing organization for the University of Wisconsin-Madison, WARF has been working with business and industry to transform university research into products that benefit society. WARF intellectual property managers and licensing staff members are leaders in the field of university-based technology transfer. They are familiar with the intricacies of patenting, have worked with researchers in relevant disciplines, understand industries and markets, and have negotiated innovative licensing strategies to meet the individual needs of business clients.



KEY BENEFITS

- First proliferating cell line of its kind
- Can be successfully passaged numerous times without losing important characteristics
- Offers better reproducibility than freshly isolated macrophages from donor cattle

STAGE OF DEVELOPMENT

The cell line continues to grow up to the 23rd (at present) passage with a successful freeze-thaw cycle in liquid nitrogen. The cells have been tested and found to be more than 95 percent viable during each passage.

ADDITIONAL INFORMATION

Tech Fields

Research Tools - Cell lines

CONTACT INFORMATION

For current licensing status, please contact Jennifer Gottwald at jennifer@warf.org or 608-960-9854.

