

## Merck introduces Ready-to-use PyroMAT In Vitro System

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Pyrogen Detection: Want to stop using animal based methods and get higher sensitivity?

We are glad to inform you that our new *in vitro* solution for pyrogen detection is now available: our [PyroMAT™](#) system is the only cell-line based Monocyte Activation Test (MAT) provided as a ready-to-use kit on the market.

The PyroMAT™ system is based on the use of the Mono-Mac-6 cell line: it is designed to provide a standardized reactivity. Once these human monocytes come into contact with pyrogens from a contaminated sample, they produce cytokines such as interleukin-6 (IL-6), which can be detected with enzyme-linked immunosorbent assay (ELISA).

With the PyroMAT™ System, we offer a new robust and sensitive solution for pyrogen detection supported by international regulations and guidelines to reduce animal consumption for pyrogen tests.

Make the move to *in vitro* methods, and benefit from our expertise:

*The advantages of monocyte activation test...*

- Detection of the full range of pyrogens to ensure patient safety. Like the rabbit pyrogen test, MAT is effective in the detection of both endotoxins and Non-Endotoxin Pyrogens (NEP).
- Extended range of testable products: the most frequently applied methods are limited in the product types they are able to test. The MAT offers more flexibility regarding its applications.
- *In vitro* assay that mimics the human immune reaction: for a robust predictive model that reduces animal consumption.
- Compliance with international regulations and guidelines in line with ethical trends of industry and regulatory authorities to decrease the use of animal based testing.

*... Combined with the benefits of using a cell line*

- Standardized reactivity and high sensitivity (LOD 0.05 EU/mL)

- Convenience of a ready-to-use cell line to avoid laborious lab work to maintain the cell line and avoids the need of a culture cell laboratory.
- Qualified cells: in addition to being cited in the international validation of MAT, MonoMac-6 cells are qualified for the detection of all types of pyrogens via testing of the expression of all surface Toll-Like Receptors (TLRs).