

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).