

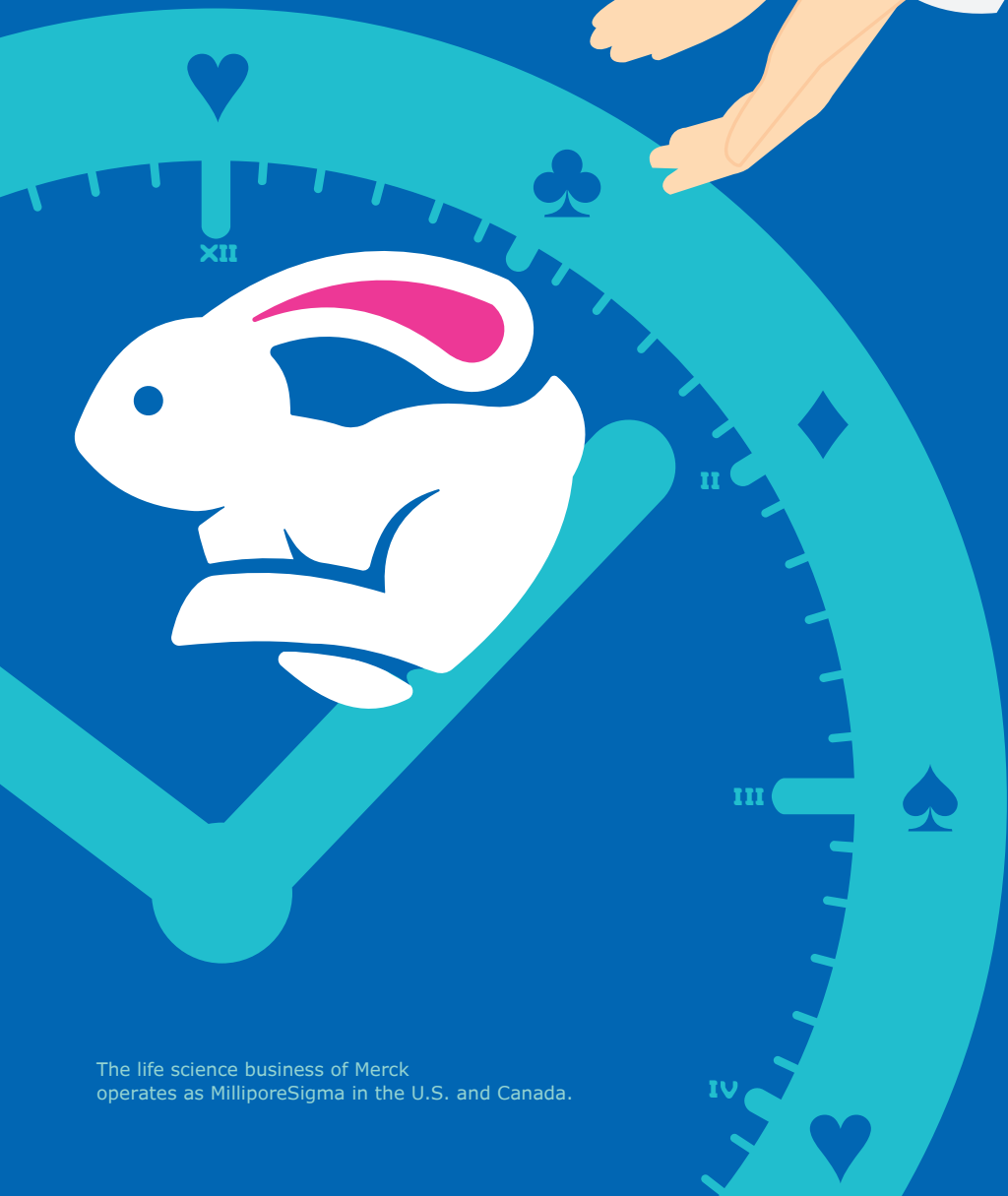
# Millipore®

Preparation, Separation,  
Filtration & Testing Products

## NOW is the TIME!

Shift from animal-based testing  
to *in vitro* testing.

[MerckMillipore.com/PyroMAT](http://MerckMillipore.com/PyroMAT)



The life science business of Merck  
operates as MilliporeSigma in the U.S. and Canada.

# MERCK

# Make the MOVE



## Now is the time! Meet regulation requirements with the PyroMAT™ Monocyte Activation Test (MAT)

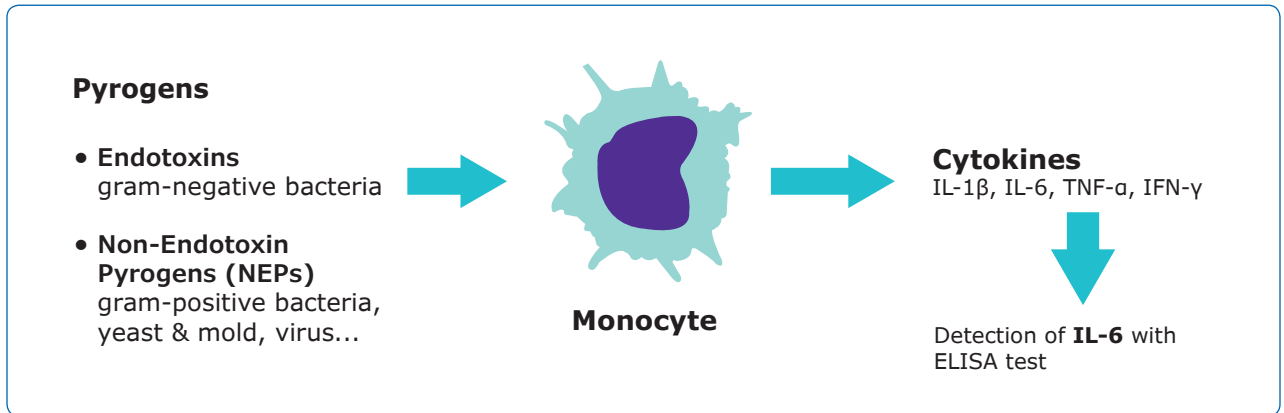
Used to detect a broad range of pyrogens in parenteral products such as pharmaceuticals, biopharmaceuticals or medical devices, the MAT gives an *in vitro* alternative to conventional animal testing in accordance with regulatory guidelines.

With our new **Mono-Mac-6 cell-line based MAT**, we provide a robust, reliable and standardized method for pyrogen detection.



# PyroMAT™: the only cell-line based pyrogen test

Mimics the human immune reaction



The MAT kit is based on the Mono-Mac-6 (MM6) cell line and uses interleukin-6 (IL-6) as a read out.

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 an enzyme-linked immunosorbent assay (ELISA).



# GO for simplicity

With a Limit Of Detection (LOD) of 0.05 EU\*/mL, PyroMAT™ System is the only ready-to-use cell line based MAT kit on the market. A new robust and easy to perform pyrogen test.

\*Endotoxin Units

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## Advantages of the MAT

**Detection of a broad range of pyrogens:** patient safety is ensured if the full range of pyrogens are tested. Like the Rabbit Pyrogen Test (RPT), MAT is effective for detection of both endotoxins and NEPs.

**Extension of the range of products that can be tested:** the most frequently applied methods, RPT and Bacterial Endotoxin Test (BET), are both 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.

## PyroMAT™ System

All the advantages of the monocyte activation test combined with the benefits of using a cell line.

## Cell Line Benefits

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

Convenience of a ready-to-use cell line that prevents customers from laborious lab work and avoids the need for a cell culture laboratory.

**Qualified cells:** in addition to being cited in the international validation of MAT, Mono-Mac-6 cells are qualified for the detection of all types of pyrogens by testing the expression of all surface Toll-Like Receptors (TLRs).



## Ordering Information

	Product Description	Store at	Catalog Number
<b>PyroMAT™ kit</b>	The kit contains reagents for the incubation with the cells and the interleukin IL-6 ELISA. Note: the PyroMAT™ cells are not included and should be ordered separately.	2-8 °C	Pyr0MATkit
<b>PyroMAT™ cells</b>	Contains the cryopreserved Mono-Mac-6 cells for one test (2 x 1 mL)	-80 °C or lower	Pyr0MATcells
<b>Reference standard endotoxin</b>	International Reference Standard Endotoxin (RSE)—positive control of endotoxin, TLR-4 agonist	Lyophilized store at -20 °C, reconstituted at -40 °C	1.44161.0001
<b>Non-Endotoxin Pyrogen control HKSA</b>	Heat Killed <i>Staphylococcus Aureus</i> (HKSA), a Gram-positive extra-cellular growing bacterium, TLR-2 agonist	Lyophilized store at 2-8 °C, reconstituted at -20 °C	MATHKSA
<b>Non-Endotoxin Pyrogen control Flagellin</b>	Flagellin, TLR-5 agonist	-20 °C	MATFLAGELLIN
<b>Interleukin-6 control</b>	For control reactions in the Interleukin IL-6 ELISA	2-8 °C	Pyr0MATIL6
<b>Software protocols</b>	To analyze results according to European Pharmacopoeia (Methods A, B and C). These analysis tools can be downloaded on <a href="http://MerckMillipore.com/PyroMAT">MerckMillipore.com/PyroMAT</a>		

All the lab material needed to perform the test is described in the user guide which is available on our website.

100%  
SERVICE

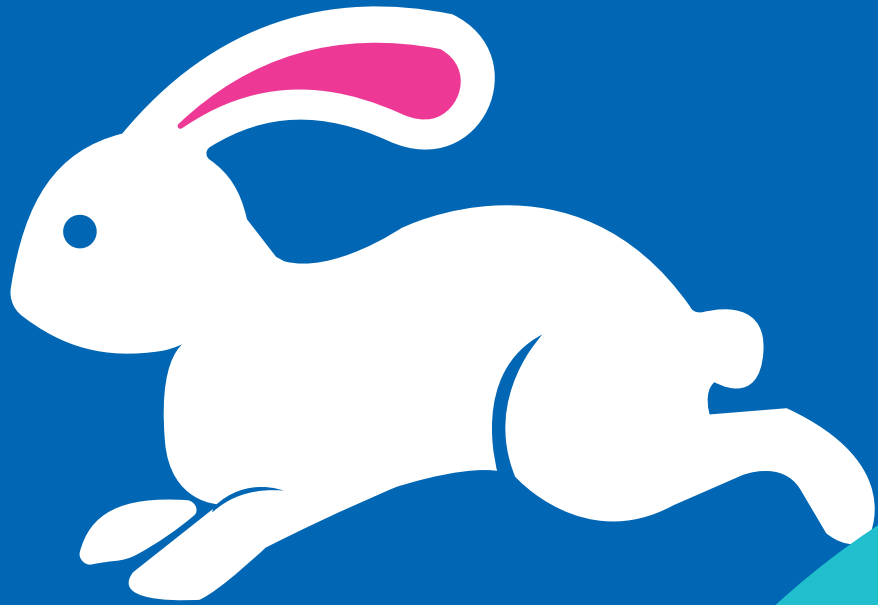
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