

## PyroMAT® System Monocyte Activation Test (MAT)

# Reference Standard Endotoxin - Ref. 1.44161.0001

### Product description

The Reference Standard Endotoxin (RSE) is the endotoxin standard recommended by the European Pharmacopoeia and supplied in a lyophilized form. Its assigned content is 10 000 International Units per vial.

The RSE is used to perform endotoxin standard curve that allows quantification of pyrogens with the PyroMAT® System (Monocyte Activation Test for pyrogen detection). Endotoxin activates the **TLR4 receptor** of monocytes.

### Storage condition

Store unopened vial at -20 °C.

Upon resuspension, prepare 50 µL aliquots and store at -40 °C or below. Our experience shows that the resuspended product is stable over at least one year at -80 °C. We have not performed a shelf life study for this product.

Avoid repeated freeze-thaw cycles.

### Quick Procedure

#### Resuspension:

- Reconstitute the RSE with 5 mL of pyrogen-free water
- Mix intermittently for 30 minutes using a vortex mixer at maximum speed
- Divide stock solution into 50 µL aliquots, into endotoxin-free microcentrifuge tubes

This reconstitution gives a stock solution at 2000 EU/mL used for MAT with PyroMAT® system.

For preparing serial dilution, aliquots of stock solution are to be taken after vigorous mixing for 3 minutes.

Subsequent dilutions are to be mixed for at least 30 seconds.

Suitable precautions should be taken in the use and disposal of the vial and its content.

### PyroMAT® system products

Product	Catalog number
PyroMAT® cells	PYROMATCELLS
PyroMAT® kit	PYROMATKIT
Reference Standard Endotoxin	1.44161.0001
NEP Control Flagellin	MATFLAGELLIN
NEP Control HKSA	MATHKSA
NEP Control FSL-1	MATFSL1
NEP Control PAM3CSK4	MATPAM3CSK4
NEP Control Resiquimod	MATRESIQUIMOD

### To place an order or receive technical assistance

Order/Customer Service:  
[SigmaAldrich.com/order](http://SigmaAldrich.com/order)

Technical Service:  
[SigmaAldrich.com/techservice](http://SigmaAldrich.com/techservice)

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

Merck KGaA  
Frankfurter Strasse 250  
64293 Darmstadt, Germany

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

© 2025 Merck KGaA, Darmstadt, Germany and/or its affiliates. All Rights Reserved. Merck, the vibrant M, Millipore and PyroMAT are trademarks of Merck KGaA, Darmstadt, Germany or its affiliates. All other trademarks are the property of their respective owners. Detailed information on trademarks is available via publicly accessible resources. Lit. No. MK\_PF2109EN Ver. 3.0 10/2025

