

# Lysozyme Inhibitor Screening Kit

## Product Information

### Cat.No.

Kit-2099

### Product Overview

Lysozyme Inhibitor Screening Kit uses N,N',N"-Triacetylchitotriose -a competitive inhibitor that binds to the active site of lysozyme. The inhibitor decreases the catalytic ability of lysozyme to hydrolyze a fluorogenic substrate. The kit provides a simple, rapid, sensitive and reliable test suitable for screening of lysozyme inhibitors.

### Size

100 assays

### Description

Lysozyme (EC3.2.1.17), also known as muramidase or N-acetylmuramide glycanhydrolase, is a glycoside hydrolase. It is ubiquitously found in a wide range of biological fluids such as tears, saliva, serum, where it serves as a key effector of the innate immune system. It is also synthesized by certain carcinomas. The excessive production of lysozymes by cancer cells (especially myelomonocytic leukemia) results in higher levels of lysozyme causing renal failure. It has been demonstrated that the expression level of lysozyme is an independent prognostic factor which can be used to predict both relapse-free survival and overall survival in patients with breast carcinomas. Therefore, lysozyme inhibitors may constitute attractive, potential targets for developing anti-inflammatory and/or anti-tumor drugs.

### Applications

The kit provides a rapid, simple, sensitive, and reliable test suitable for high throughput screening of Lysozyme inhibitors. nhibitor control (N,N,N-Triacetylchitotriose) is included to compare the efficacy of test inhibitors.

### Storage

Store kit at -20°C, protected from light. Briefly centrifuge small vials prior to opening. Read entire protocol before performing the assay.Lysozyme Assay Buffer: Warm to 37°C before use. Store at

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either 4°C or -20 °C. Lysozyme Substrate: Aliquot and store at -20 °C. Bring to room temperature before use. Lysozyme: Reconstitute with 1060  $\mu$ l Lysozyme Assay Buffer, pipette up and down to mix thoroughly. Aliquot and store at -20°C. Avoid repeated freeze/thaw. Keep on ice while in use. Stable for 2 months after reconstitution. N,N',N"-Triacetylchitotriose: Reconstitute with 60  $\mu$ l dH<sub>2</sub>O and store at -20°C. Use within two months.

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### Kit Components

Lysozyme Assay Buffer: 25 ml Lysozyme substrate (in DMSO): 65  $\mu$ l Lysozyme (lyophilized): 1 vial N,N',N"-Triacetylchitotriose: 1 vial

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**Detection method** Fluorescence (Ex/Em = 360/445 nm)

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### Features & Benefits

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- Simple procedure
- Fast and convenient
- The assay is sensitive, stable and high-throughput adaptable

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