CREATIVE BIOMART®
Assay Kit

Neutrophil elastase colorimetric drug discovery Kit

Product Information

Cat.No. Kit-0323

Product Overview

It is a complete assay system designed to screen inhibitors of neutrophil elastase, providing enough material to perform at least 96 assays.

Size

96 wells

Description

Neutrophil elastase, also known as leukocyte elastase (LE), is a serine protease found in polymorphonuclear neutrophils (PMNs) that functions in inflammation. It can cleave a variety of proteins, including fibrous elastin, collagen, clotting factors, TNF-a, and a1-antichymotrypsin. It has been shown to be taken up by tumor cells and accelerate tumor growth through its degradation of insulin receptor substrate-1 (IRS-1). Because of its potential roles in cancer and inflammatory diseases such as emphysema, cystic fibrosis, and atherosclerosis, it is a target for drug discovery. The kit uses the chromogenic substrate MeOSuc-Ala-Ala-Pro-Val-pNA; cleavage of p-nitroaniline (pNA) from the substrate increases absorbance at 405nm. A neutrophil elastase inhibitor, elastatinal, is included for use as a control.

Applications

Colorimetric detection, HTS

Storage

-80°C

Kit Components

Neutrophil elastase (human), (purified)pNA substrate (MeOSuc-AAPV-pNA) (60μL; 20mM in DMSO)pNA calibration standard (p-nitroaniline) (1ml; 50μM in assay buffer)Elastatinal (inhibitor) (10μL; 20mM in DMSO)Neutrophil elastase assay buffer (20ml; 100mM HEPES, pH 7.25, 500mM NaCl, 0.05% Tween-20; liquid in a screw-cap plastic bottle)96-well microplate

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