CREATIVE BIOMART®
Assay Kit

Collagenase Inhibitor Screening Kit

Product Information

Cat.No. Kit-2137

Product Overview

Collagenase Inhibitor Screening Kit provides a quick and sensitive way for screening, studying and characterizing potential inhibitors of Collagenase. The kit uses Self-Quenched boron-dipyrromethene dye conjugate of Gelatin (Type B) as a fluorogenic substrate to monitor the activity of Collagenase. Gelatin consists of a heterogeneous mixture of proteins of high average molecular weight derived from collagen Upon proteolytic digestion of the highly quenched boron-dipyrromethene dye-labeled gelatin by Collagenase, the de-quenched boron-dipyrromethene dye yields bright green fluorescence that can be assayed using a fluorometer or a fluorescence microplate reader (Ex/Em: 490 nm / 520 nm, 515 nm cutoff). In the presence of a Collagenase inhibitor, the gelatin is not digested, the dequenching of boron-dipyrromethene dye does not occur and the fluorescent signal is not produced.

Size

100 assays

Description

Collagenase (EC 3.4.24.3) is an enzyme in the matrix metalloproteinase (MMP) family that breaks down collagen, assisting in degradation of the extracellular matrix, a key step in the pathogenesis of bacteria and tumor cell invasion. Collagen is an abundant structural protein present in the connective tissue of animals. Collagenase has been used clinically for the treatment of Dupuytren''s contracture, an affliction characterized by a thickening of connective tissue.

Applications

Screening/studying/characterizing potential Collagenase inhibitors

Storage

Store kit at -20°C, protected from light. Briefly centrifuge small vials prior to opening. Read the entire protocol before performing the assay.Collagenase Assay Buffer: Bring to room temperature before use. Store at -20°C or 4°C.Collagenase Substrate: Reconstitute with 210 µl Assay Buffer. Incubate the

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vial at 37°C for 10 min. Tap gently to mix and ensure that it is completely dissolved. Store the reconstituted substrate at -20°C.Collagenase: Aliquot and store at -20°C. Avoid repeated freeze/thaw.Inhibitor (1,10)-Phenanthroline (400 mM): Aliquot and store at -20°C. To make 100x working solution, dilute 2 µl of 1,10- Phenanthroline stock solution with 8 µl ethanol.

Kit Components

Collagenase Assay Buffer: 25 mlCollagenase Substrate: 1 vialCollagenase: 30 µlInhibitor (1,10)-Phenanthroline (400 mM): 50 µl

Detection method Fluorescence (Ex/Em = 490/520 nm)

Compatible Sample Types

Chemical libraries, small molecules

Features & Benefits

• Simple and quick protocol• Detect using a fluorometer or fluorescence microplate reader.

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