CREATIVE BIOMART®
Assay Kit

Collagenase (Collagen Degradation/Zymography) Assay Kit (Fluorometric)

Product Information

Cat

Kit-1047

Common Name

Collagenase

Cat.No. Kit-1047

Description

Collagenases, members of the matrix metalloproteinase (MMP) family, are;endopeptidases that digest native collagen in the triple helix region and are involved in the physiological and pathological turnover of connective tissues. Collagens are the major fibrous component of animal extracellular connective tissue. Bacterial collagenases differ from vertebrate collagenases in that they exhibit broader substrate specificity. Collagenases may play a role in facilitating tumor cell invasion of the extracellular matrix at multiple stages of the metastatic process.;Collagenases have also been approved for medical uses for the treatment of;Dupuytrens contracture, Peyronies disease and wound healing. Collagenase activity is usually detected by small peptide-based activity assays which may suffer from lack of substrate specificity. Other methods for collagenase activity include collagen Zymography where samples are electrophoresed on a collagen-containing SDS-PAGE, and further renatured in a suitable buffer for 12-16 h. The zymogram is subsequently stained, and areas of digestion appear as clear bands against a darkly stained background where the substrate has been degraded by the enzyme. Such methods are laborious, time-consuming and may lead to the loss of enzymatic activity as renaturation may not be completely reversible. Collagenase Activity Assay Kit utilizes a hybrid approach for the detection of collagenase activity by employing a highly quenched collagen substrate which upon cleavage by a suitable collagenase releases a fluorophore, which can be easily quantified using a conventional microplate reader. This method is substrate-specific, simple, fast, high-throughput adaptable and amenable to the sensitive detection of collagenase activity (as low as 0.6 mCDU for bacterial collagenase) in biological samples.

Applications

Tel: 1-631-559-9269 1-516-512-3133
Email:info@creative-biomart.org
Fax:1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

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Measurement of collagenase activity; For screening/studying/characterizing collagenase inhibitors

Storage

-20°C

Shipping

Gel Pack

Size

100 assays

Kit Components

Collagenase Assay Buffer; Cell Lysis Buffer; Enzyme Positive Control; Collagenase (Substrate); FITC Standard (5 mM)

Target Species

Mammalian

Detection method Fluorescence (490/520 nm)

Features & Benefits

Rapid & sensitive;
Simple assay to measure collagenase activity as well as to screen/study/characterize potential inhibitors of collagenase;
Includes Fluorometric Collagenase Substrate and Positive Control

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