CREATIVE BIOMART®
Assay Kit

MMP-14 Inhibitor Screening Kit (Fluorometric)

Product Information

Cat

Kit-2320

Cat.No. Kit-2320

Product Overview

The Matrix metalloproteinase-14 (MMP-14) (MT1-MMP) belongs to a family of zinc-dependent endopeptidases that are responsible for the degradation of the extracellular matrix (ECM) proteins including collagens, elastins, gelatin, matrix glycoproteins and proteoglycans, during normal development and disease processes. MMPs can be classified into at least four different families of closely related members - collagenases, gelatinases, stromelysins, and membrane-type MMPs (MT-MMPs). MMP-14 belongs to the family of MT-MMPs and is localized on cell surfaces via its transmembrane domain. MMP-14 is expressed in adult lung, placenta, kidney, ovaries, intestine, prostate and spleen along with certain carcinomas. The ability of MMP-14 to degrade type I collagen, and activate pro-MMP-2 and pro-MMP-9 makes it a key enzyme in many physiological and pathological processes such as angiogenesis and tumor invasion. MMP-14 Inhibitor Screening Kit provides a simple, fast and high-throughput adaptable method to screen/study/characterize potential MMP-14 inhibitors. The assay utilizes the ability of MMP-14 to cleave a synthetic MCA-based peptide substrate to release free MCA (7-Methoxycoumarin-4-acetic acid), which can be easily quantified using a fluorometer or fluorescence microplate reader at Ex/Em = 325/420 nm. In the presence of a MMP-14 specific inhibitor, the cleavage of the substrate is reduced/abolished, resulting in decrease or total loss of the MCA fluorescence.

Applications

Screening/studying/characterizing potential MMP-14 inhibitors

Storage

-20°C

Shipping

Gel Pack

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Size
100 assays
Kit Components
MMP-14 Assay Buffer; MMP-14 Substrate (4 mM); MMP-14 Enzyme; MMP-14 Inhibitor (NNGH, 2 mM)
Detection method Fluorescence (Ex/Em = 325/420 nm)
Features & Benefits
Fluorometric detection.

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