

Matrix Metalloproteinase 3 (MMP-3) Inhibitor Kit | MMP-3 kit

Matrix Metalloproteinase 3 (MMP-3) Inhibitor Screening Kit

CATALOG #
AAA178649

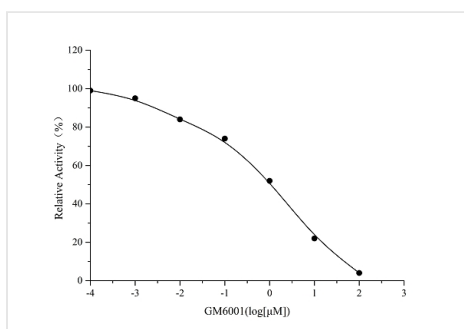
PRODUCT SYNONYMS

Matrix Metalloproteinase 3 (MMP-3) Inhibitor; Matrix Metalloproteinase 3 (MMP-3) Inhibitor Screening Kit; MMP-3 kit

PRODUCT SPECIFICATIONS

Assay Type	Inhibition Rate
Detection Method	Fluorescence method
Detection Instrument	Fluorescence Microplate reader
Assay Time	45 min
Test Principle	Matrix metalloproteinase 3 (MMP-3) is an important member of the MMP family. The MMP-3 precursor is cleaved by serine proteinases such as plasmin and chymotrypsin to remove the precursor peptide containing the cysteine switch and form MMP-3 with protease activity. MMP-3 can degrade or shear a variety of extracellular matrix components, precursor proteins or precursor enzymes, and can destroy the histological barrier of tumor cell invasion, release E-cadherin, promote tumor invasion and metastasis, and promote inflammatory response, which has received increasing attention in tumor research. In addition, MMP-3 is also involved in a series of physiological and pathological processes such as tissue morphogenesis, injury repair and inflammatory response, and plays an important role in the occurrence and development of diseases such as rheumatoid arthritis and atherosclerosis. This MMP-3 inhibitor screening kit was detected by fluorescence resonance energy transfer (FRET) method. MCA and Dnp are linked to the two ends of the native substrate of MMP-3 enzyme. When MMP-3 protease does not cleave the substrate, the two groups are close enough to undergo fluorescence resonance energy transfer, that is, Dnp can quench the fluorescence of MCA and cause no fluorescence to be detected. When the substrate is cut by MMP-3 protease, the both ends of the polypeptide are separated, the two groups are separated, the fluorescence of MCA is no longer extinguished by Dnp, and the fluorescence of MCA can be detected, so that the enzyme activity of MMP-3 protease can be detected very sensitively through fluorescence detection. If the Inhibitor of MMP-3 protease is added to the reaction system, the generation of fluorescence will be inhibited, and the fluorescence intensity is inversely proportional to the inhibitory effect of the inhibitor, so that the inhibitory effect of MMP-3 protease inhibitor can be detected. MCA has a maximum excitation wavelength of 325nm and a maximum emission wavelength of 393nm.
Preparation and Storage	This product can be stored at -20 degree C for 12 months with shading light. Ship: Ice bag

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Product Categories/Family for MMP-3 kit	Metabolism Assay; Cell Metabolism Assays
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For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/kits/matrix-metalloproteinase-3-mmp-3-inhibitor/178649>