

## MMP-9 Inhibitor Screening Kit

Cat. No. Kit-2130 Lot. No. (See product label)

### SPECIFICATION

#### Product Overview

Matrix metalloproteinase-9 (MMP9, gelatinase B, 92 kDa type IV collagenase) is a member of the MMP family of extracellular proteases. These enzymes play a role in many normal and disease states by virtue of their broad substrate specificities. Targets of MMP9 include native and denatured collagens, fibronectin, elastin, laminin, pro-TNF- $\alpha$ , and interleukins and their receptors. MMP9 is secreted as a 92 kDa proenzyme (as measured by SDS-PAGE), and activated by cleavage to forms 82 kDa and smaller. MMP9 is an important target for inhibitor screening due to its involvement in diseases such as alopecia, cancer, angiogenesis, and metastasis. MMP9 Inhibitor Screening Assay Kit (Fluorometric) is a complete assay system designed to screen MMP9 inhibitors using a quenched fluorogenic peptide: MMP Fluorogenic Substrate Mca-Pro-Leu-Gly-Leu-Dpa-Ala-Arg-NH<sub>2</sub> [Mca=(7-methoxycoumarin-4-yl)-acetyl; Dpa=N-3-(2,4-dinitrophenyl)-L- $\alpha$ - $\beta$ diaminopropionyl]. Mca fluorescence is quenched by the Dpa group until cleavage by MMPs at the Gly-Leu bond separates the two moieties. The assays are performed in a convenient 96-well microplate format. The kit is useful to screen inhibitors of MMP9, a potential therapeutic target. The compound NNGH is also included as a prototypic control inhibitor.

#### Size

96Tests

#### Storage

-80°C

#### Applications

Screening/studying/characterizing potential MMP-9 inhibitors

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<b>Shipping</b>	Dry Ice
<b>Kit Components</b>	96-well White Microplate 1/2 Volume--- 1 x 1 Unit Fluorometric Assay Buffer---1 x 20 mL MMP Calibration Standard---1 x 50 $\mu$ MMP Fluorogenic Substrate---1 x 200 $\mu$ MMP Inhibitor---1 x 50 $\mu$ MMP9 Enzyme (Human, Recombinant)---1 x 48.5 $\mu$
<b>Materials Required but Not Supplied</b>	Fluorescent microplate reader capable of excitation at 328 nm and emission at 420 nm. The following Ex/Em have also been used: 320,340/393,400,405. Pipettes or multi-channel pipettes capable of pipetting 1-100 $\mu$ accurately. (Note: reagents can be diluted to increase the minimal pipetting volume to >10 $\mu$ ). Ice bucket to keep reagents cold until use. Water bath or incubator for component temperature equilibration.

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