

MMP9 Inhibitor Screening Assay Kit (Fluorometric)  
ab139449

1 Image

Overview

Product name	MMP9 Inhibitor Screening Assay Kit (Fluorometric)
Detection method	Fluorescent
Sample type	Inhibitor compounds
Assay type	Enzyme activity
Product overview	Abcam MMP9 Inhibitor Screening Assay Kit (Fluorometric) (ab139449) 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-NH2 [Mca=(7-methoxycoumarin-4-yl)-acetyl; Dpa=N-3-(2,4-dinitrophenyl)-L-α-β-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.
Notes	This kit is useful to screen inhibitors of MMP9, a potential therapeutic target. The MMP inhibitor NNHG is also included as a prototypic control inhibitor.
Platform	Microplate reader

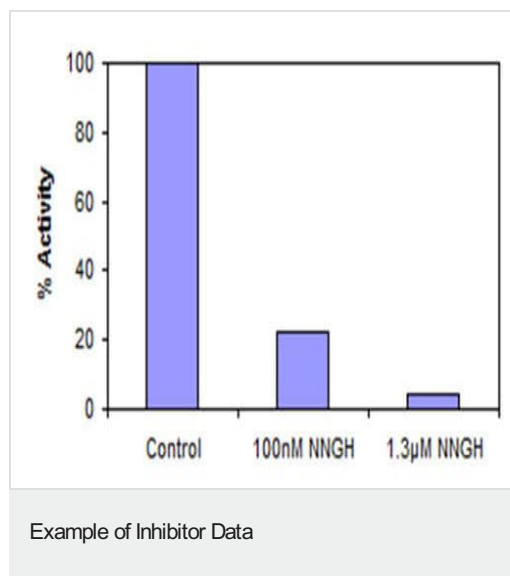
Properties

Storage instructions Please refer to protocols.

Components	1 x 96 tests
96-well White Microplate 1/2 Volume	1 unit
Fluorometric Assay Buffer	1 x 20ml
MMP Calibration Standard	1 x 50µl
MMP Fluorogenic Substrate	1 x 200µl
MMP Inhibitor	1 x 50µl
MMP9 Enzyme (Human, Recombinant)	1 x 48.5µl

<b>Function</b>	May play an essential role in local proteolysis of the extracellular matrix and in leukocyte migration. Could play a role in bone osteoclastic resorption. Cleaves KiSS1 at a Gly-Leu bond. Cleaves type IV and type V collagen into large C-terminal three quarter fragments and shorter N-terminal one quarter fragments. Degrades fibronectin but not laminin or Pz-peptide.
<b>Tissue specificity</b>	Produced by normal alveolar macrophages and granulocytes.
<b>Involvement in disease</b>	Intervertebral disc disease Metaphyseal anadysplasia 2
<b>Sequence similarities</b>	Belongs to the peptidase M10A family. Contains 3 fibronectin type-II domains. Contains 4 hemopexin repeats.
<b>Domain</b>	The conserved cysteine present in the cysteine-switch motif binds the catalytic zinc ion, thus inhibiting the enzyme. The dissociation of the cysteine from the zinc ion upon the activation-peptide release activates the enzyme.
<b>Post-translational modifications</b>	Processing of the precursor yields different active forms of 64, 67 and 82 kDa. Sequentially processing by MMP3 yields the 82 kDa matrix metalloproteinase-9. N- and O-glycosylated.
<b>Cellular localization</b>	Secreted, extracellular space, extracellular matrix.

## Images



Inhibitor of MMP9 by NNGH.

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