

2 References 画像数 4

製品の概要

製品名	MMP1 Inhibitor Screening Assay Kit (Colorimetric)
検出方法	Colorimetric
サンプルの種類	Inhibitor compounds
アッセイタイプ	Enzyme activity
製品の概要	<p>Abcam MMP1 Inhibitor Screening Assay Kit (Colorimetric) (ab139443) is a complete assay system designed to screen MMP1 inhibitors using a thiopeptide as a chromogenic substrate (Ac-PLG-[2-mercapto-4-methyl-pentanoyl]-LG-OC₂H₅). The MMP cleavage site peptide bond is replaced by a thioester bond in the thiopeptide. Hydrolysis of this bond by an MMP produces a sulfhydryl group, which reacts with DTNB [5,5'-dithiobis(2-nitrobenzoic acid), Ellman's reagent] to form 2-nitro-5-thiobenzoic acid, which can be detected by its absorbance at 412 nm ($\epsilon=13,600 \text{ M}^{-1}\text{cm}^{-1}$ at pH 6.0 and above). The assays are performed in a convenient 96-well microplate format.</p>
特記事項	<p>This kit is useful to screen inhibitors of MMP1, a potential therapeutic target. The MMP inhibitor NNGH is also included as a prototypic control inhibitor.</p> <p>Thiol inhibitors should not be used with this kit, as they may interfere with the colorimetric assay.</p>
試験プラットフォーム	Microplate reader

製品の特長

保存方法	
Please refer to protocols.	
内容	1 x 96 tests
96-well Clear Microplate (1/2 Volume)	1 unit
Colorimetric Assay Buffer	1 x 20ml
MMP Inhibitor	1 x 50μl
MMP Substrate	1 x 50μl
MMP1 Enzyme (Human, Recombinant)	1 x 66μl

機能	Cleaves collagens of types I, II, and III at one site in the helical domain. Also cleaves collagens of
----	--

types VII and X. In case of HIV infection, interacts and cleaves the secreted viral Tat protein, leading to a decrease in neuronal Tat's mediated neurotoxicity.

配列類似性

Belongs to the peptidase M10A family.

Contains 4 hemopexin-like domains.

ドメイン

There are two distinct domains in this protein; the catalytic N-terminal, and the C-terminal which is involved in substrate specificity and in binding TIMP (tissue inhibitor of metalloproteinases). 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.

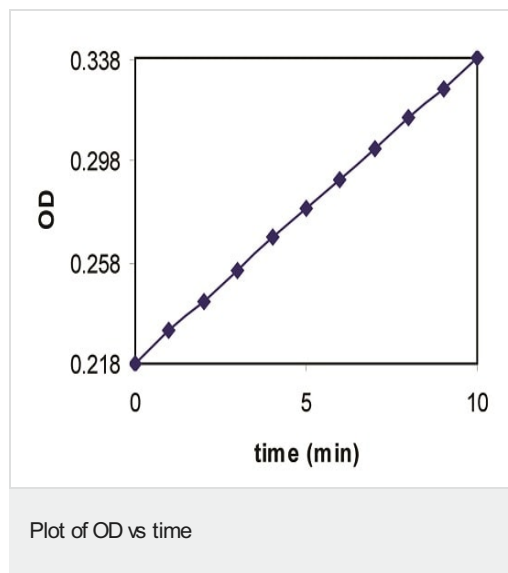
翻訳後修飾

Undergoes autolytic cleavage to two major forms (22 kDa and 27 kDa). A minor form (25 kDa) is the glycosylated form of the 22 kDa form. The 27 kDa form has no activity while the 22/25 kDa form can act as activator for collagenase.

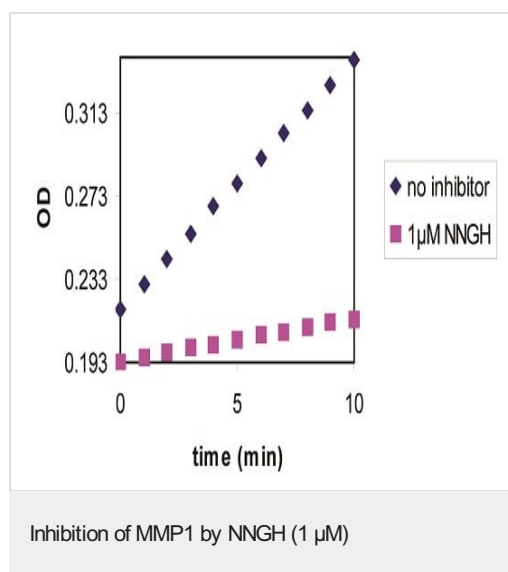
細胞内局在

Secreted > extracellular space > extracellular matrix.

画像



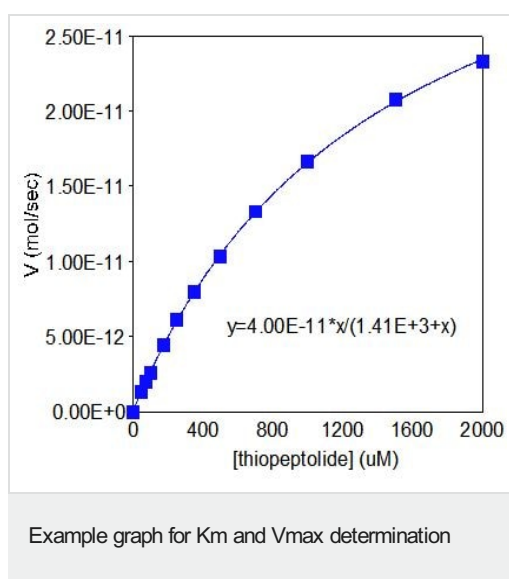
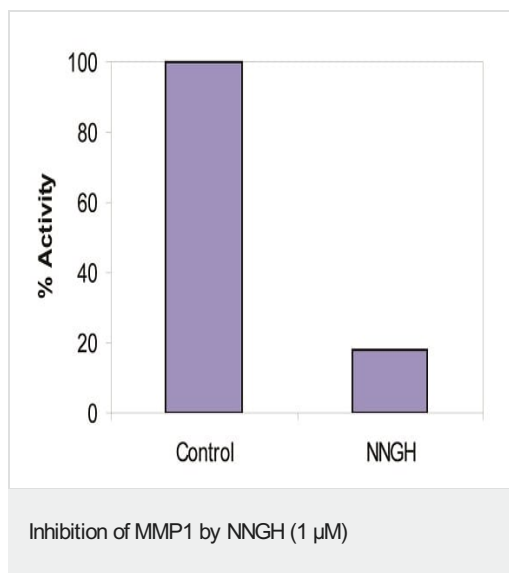
Slope = $V = 1.20E-02$ OD/min



control slope = $1.20E-02$ OD/min

inhibitor slope = $2.13E-03$ OD/min

inhibitor % activity remaining = $(2.13E-03 / 1.20E-02) \times 100 = 17.7\%$



Km = 1410 μ M
Vmax = 40.0 pmol/sec

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.co.jp/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors