Matrix metalloproteinase-3 (MMP-3) fluorometric drug discovery kit, GREEN

The MMP-3 Fluorometric (also known as fluorimetric)Drug Discovery Kit, GREEN is a complete assay system designed to screen MMP-3 inhibitors using a quenched fluorogenic MMP-3 substrate: 5-FAM-Arg-Pro-Lys-Pro-Val-Glu-Nva-Trp-Arg-Lys(TQ2W)-NH_2 [5-FAM=5-carboxyfluorescein; Nva=norvaline; TQ2W=quencher]. FAM fluorescence is thoroughly quenched by the TQ2W group until cleavage by MMPs separates the two moieties.

The assays are performed in a convenient 96-well microplate format. The kit is useful to screen inhibitors of MMP-3, a potential therapeutic target. The compound NNGH is also included as a prototypic control inhibitor.

Matrix metalloproteinase-3 (MMP-3, stromelysin-1, transin-1) 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 MMP-3 include collagens, fibronectin, and laminin, plasminogen, HB-EGF, E-cadherin, and other MMPs. MMP-3 is secreted as a 55-59kDa glycosylated proenzyme (measured by SDS-PAGE), and activated by cleavage to forms of 21-48kDa. It is unique from other MMPs in that its pH optimum is 5.9, rather than around 7.0.

Manuals, SDS & CofA

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Handling & Storage

Handling	Avoid freeze/thaw cycles.
Long Term Storage	-80°C
Shipping	Dry Ice

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	Stromelysin-1, Transin-1
Application	Activity assay, Fluorescent detection, HTS
Application Notes	Designed to screen MMP-3 inhibitors using a quenched fluorogenic substrate.
Contents	1 vial MMP-3 enzyme 1 vial substrate (MMP-3 fluorogenic substrate) 1 vial 5-FAM calibration standard 1 vial control inhibitor (NNGH) 1 bottle (20 ml) assay buffer 1 black 96-well microplate Instructions
Technical Info / Product Notes	**NCBI Reference Sequence:** NM_002422 The MMP-3 Fluorogenic Substrate offers key advantages over other MMP substrates. 1. Emission at the green end of the spectrum avoids the interference at lower wavelengths often exhibited by screening compounds, and by substances commonly found in biological samples and tissue culture medium. 2. The ultra-strong fluorescence of this substrate allow for substrate concentrations much lower than the K_m, a condition generally desirable in inhibitor screening/kinetics assays.
UniProt ID	P08254

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