



Product Data Sheet

Product Name: 390 MMP FRET Substrate I

Catalog Number: AS-27076 (1 mg) **Lot Number:** See label on vial

Sequence: Mca-Pro-Leu-Gly-Leu-Dap(Dnp)-Ala-Arg-NH₂ (3-letter code)
Mca-PLGL-Dap(Dnp)-AR-NH₂ (1-letter code)

Molecular Weight: 1094.2

% Peak Area by HPLC: ≥ 95

Appearance: Lyophilized yellow powder

Peptide Reconstitution: Using DMSO, reconstitute by adding 80-100 µl to 1 mg MMP FRET substrate.

Storage: MMP FRET peptide is shipped at ambient temperature. Upon receipt, store lyophilized peptide at –20°C or lower. Reconstituted peptide can be aliquoted and stored at –20°C or lower.

Description:

This Mca/Dnp-based FRET substrate is a sensitive and efficient reagent for assaying MMP activity. It can be cleaved by MMP-1, 2, 7, 8, 9, 12, 13, 14, 15, 16 and 24.

This FRET peptide substrate incorporates DNP, a commonly used quencher within peptide substrates available to pair with Mca. When the peptide is intact, the fluorescence of Mca (donor) is quenched by Dnp through fluorescence resonance energy transfer (FRET). Upon cleavage by MMPs into two separate fragments, the fluorescence of Mca is recovered and can be detected at the emission wavelength of 393±20 nm, with excitation wavelength of 325±20 nm.

Prepare 1 mM DMSO stock solution and dilute in an appropriate assay buffer at a concentration range of 1 to 100 µM. The peptide concentration needs to be optimized depending on your experimental conditions.

References:

Knight, CG. et al. *FEBS Lett.* **296**, 263 (1992);
Netzel-Arnett, S. et al. *Anal. Biochem.* **195**, 86 (1991).

For Research Use Only