Product Data Sheet

Product Name: 520 MMP FRET Substrate XII

Catalog Number: AS-60579-01 (0.1mg) Lot Number: See label on vial

Sequence: 5-FAM-Arg-Pro-Lys-Pro-Tyr-Ala-Nva-Trp-Met-Lys(QXL™ 520)-NH2 (3-letter code)
5-FAM-RPKPYA-Nva-WM-K(QXL™ 520)-NH2 (1-letter code)

Molecular Weight: 2125.4

Peptide Purity: >95%

Appearance: Lyophilized red powder

Peptide Reconstitution: 520 MMP FRET Substrate XII is freely soluble in DMSO.

Storage: 520 MMP FRET Substrate XII 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: A sensitive substrate for assaying MMP-1, 2, 7, 8, 12 and 13 activities, Abs/Em = 494/521nm.

Additional Information: *Listed below are relevant information that may provide a guideline on how to use this product. End users will have to adapt to their own specific applications.*

This 5-FAM/QXL™520-based FRET substrate is a sensitive and efficient reagent for assaying MMP activity. It can be cleaved by MMP-1, 2, 3, 12, and 13.
This FRET peptide substrate incorporates QXL™520, the best quencher available to pair with 5-FAM. When the peptide is intact, the fluorescence of 5-FAM (donor) is quenched by QXL™520 (“dark” acceptor) through fluorescence resonance energy transfer (FRET). Upon cleavage by MMPs into two separate fragments, the fluorescence of 5-FAM is recovered and can be detected at the emission wavelength of 520±20 nm, with excitation wavelength of 490±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. Ref: Bremer, C. et al., *Acad.Radiol.* 9 Suppl 2, S314 (2002); Nagase, H. et al., *J.Biol.Chem*. **269**, 20952 (1994).

Related Products:

Name	Cat #	Size
520 MMP FRET Substrate XIII 5-FAM-RPKPVE-Nva-WRK(QXL™ 520)-NH2	AS-60580-01	0.1 mg

For Research Use Only