



Product Information Sheet

Product Name:	520 MMP FRET Substrate IX
Sequence:	QXL™520-Arg-Pro-Leu-Ala-Leu-Trp-Arg-Lys(5-FAM)-NH ₂ ¹⁻³
Catalog Number:	60576-01
MW:	1889.5
HPLC Purity:	> 95%
Storage:	The product is stable for 1 year at -20°C.

Features and Biological 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, 7, 8, 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.

References

1. Kraft, PJ. et al., *Connect.Tissue Res.* 42, 149 (2001).
2. Itoh, M. et al., *J.Pharm.Biomed.Anal.* 15, 1417 (1997).
3. Welch, AR. et al., *Arch.Biochem.Biophys.* 324, 59 (1995).

For *in vitro* research use only