



## Product Data Sheet

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**Product Name:** Rat Renin FRET Substrate (5-FAM/QXL® 520)  
**Catalog Number:** AS-62334-01 (0.1 mg) **Lot Number:** See label on vial  
**Molecular Weight:** 2000-2200  
**% Peak Area by HPLC:** ≥ 95  
**Appearance:** Lyophilized red powder

**Peptide Reconstitution:** Reconstitute by adding 100 µl 1% NH<sub>4</sub>OH to 1 mg Rat Renin substrate. Dilute this peptide solution to approximately 1 mg/ml (or more dilute) with a buffer such as PBS or another buffer; aliquot and store at -20°C.

**Storage:** Rat Renin 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 renin FRET peptide is a specific substrate for rat renin. Aspartyl protease cleaves angiotensinogen to yield angiotensin I, which is further converted to angiotensin II. The renin-angiotensin system is a coordinated hormonal cascade in the control of cardiovascular, renal, and adrenal function. It governs body fluid and electrolyte balance, as well as arterial pressure. Since an overactive renin-angiotensin system leads to hypertension, renin is an attractive target for the treatment of this disease.

This renin peptide substrate may be used for screening renin inhibitors. In the FRET peptide, the fluorescence of 5-FAM is quenched by QXL® 520. Upon cleavage into two separate fragments by rat renin, the fluorescence of 5-FAM is recovered, and can be monitored at excitation/emission = 490/520 nm. The SensoLyte™ 520 Renin Assay Kit (cat # 72040) contains the human renin FRET substrate.

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