



## Product Data Sheet

---

<b>Product Name:</b>	HIV Protease FRET Substrate I	
<b>Catalog Number:</b>	AS-22992 (1 mg)	Lot Number: See label on vial
<b>Molecular Weight:</b>	1532.8	
<b>% Peak Area by HPLC:</b>	≥ 95	
<b>Appearance:</b>	Lyophilized red powder	
<b>Peptide Reconstitution:</b>	Use fresh concentrated Anhydrous DMSO as the solvent. Do not use DMSO diluted with aqueous solvents, as this is not an effective solvent. Do not add aqueous solvent to the peptide prior to DMSO addition as this may prevent proper solubilization. Add concentrated DMSO directly to the lyophilized peptide powder to obtain a final concentration of approximately 0.5mg/mL to 1mg/mL. Gently vortex to mix	
<b>Storage:</b>	Peptide is shipped at ambient temperature. Upon receipt, store lyophilized powder at –20°C or lower. Reconstituted peptide should be aliquoted into several freezer vials and stored at –20°C or lower. Do not freeze thaw.	
<b>Description:</b>	<p>DABCYL-GABA-Ser-Gln-Asn-Tyr-Pro-Ile-Val-Gln-EDANS is also called HIV protease substrate I in some literature. It is widely used for the continuous assay for HIV protease activity. The 11-kD protease (PR) encoded by the human immunodeficiency virus 1 (HIV-1) is essential for the correct processing of viral polyproteins and the maturation of infectious virus, and is therefore a target for the design of selective acquired immunodeficiency syndrome (AIDS) therapeutics. The FRET-based fluorogenic substrate is derived from a natural processing site for HIV-1 PR. Incubation of recombinant HIV-1 PR with the fluorogenic substrate resulted in specific cleavage at the Tyr-Pro bond and a time-dependent increase in fluorescence intensity that is linearly related to the extent of substrate hydrolysis. The fluorescence quantum yields of the HIV- 1 PR substrate in the FRET assay increased by 40.0- and 34.4-fold, respectively, per mole of substrate cleaved. Because of its simplicity and precision in the determination of reaction rates required for kinetic analysis, this substrate offers many advantages over the commonly used HPLC or electrophoresis-based assays for peptide substrate hydrolysis by retroviral PRs. Abs/Em = 340nm/490nm. Ref: Anjuere, F. et al. <i>Biochem J</i> <b>291</b>, 869 (1993), Geohegan KF, et al. <i>FEBS Lett</i> <b>262</b>, 119 (1990).</p>	

### Related Products:

<b>Name</b>	<b>Cat #</b>	<b>Size</b>
SensoLyte® 490 HIV Protease Assay Kit *Fluorimetric*	AS-71127	1 kit
SensoLyte® 520 HIV Protease Assay Kit *Fluorimetric*	AS-71147	1 kit

### **For Research Use Only**