HIV Protease FRET Substrate I DABCYL - GABA - Ser - GIn - Asn - Tyr - Pro -Ile - Val - GIn - EDANS

Product Code: 3129-0100

Innopep Peptide Product

Price: \$196.00

Short Description

DABCYL-GABA-SGNYPIVQ-EDANS

Description

Overview Description

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.Minimum Purity: 95%
Sequence	DABCYL-GABA-SGNYPIVQ-EDANS
Sequence (3 Letter)	DABCYL - GABA - Ser - Gln - Asn - Tyr - Pro - Ile - Val - Gln - EDANS
Molecular Weight Properties	1532.5
Purity Storage	% Peak Area By HPLC ? 95% -20 °C

References

Anjuere, F. et al. (1993). Sensitive, hydrosoluble, macromolecular fluorogenic substrates for human immunodeficiency virus 1 proteinase. Biochem J 291 (Pt 3), 869-73, Geohegan KF, et al. (1990). Fluorescence-based continuous assay for the aspartyl protease of human immunodeficiency virus-1. FEBS Lett 262, 119-22.