CoV Protease Substrate-2 EDANS

FRET-based peptide substrate for detection of protease activity of coronaviruses

Catalog #100-0509	100 Tests
100-0510	1000 Tests

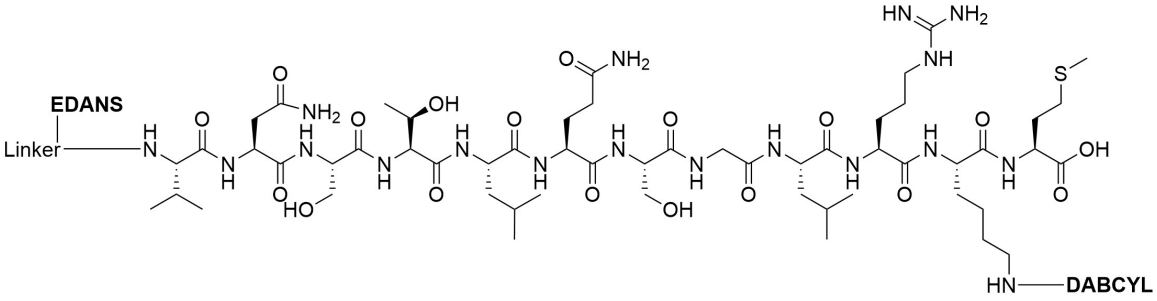
STEMCELL™ TECHNOLOGIES
Scientists Helping Scientists™ | WWW.STEMCELL.COM
TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713
INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM
FOR GLOBAL CONTACT DETAILS VISIT OUR WEBSITE

Product Description

The coronavirus (CoV) main protease, also called 3CL^{pro}, regulates the CoV replication complex and is a potential target for therapeutic applications. CoV Protease Substrate-2 EDANS is a fluorescence resonance energy transfer (FRET)-based peptide that can be cleaved by the 3CL^{pro} CoV proteases. It consists of a 12-amino-acid sequence (VNSTLQSGLRKM) that also contains the DABCYL (quencher) and EDANS (donor) fragments at the N- and C- termini, respectively. When the peptide substrate is intact, favorable energetic overlap of the EDANS excited state and the DABCYL absorption leads to efficient intramolecular fluorescence quenching of EDANS by the DABCYL fragment. Cleavage of the substrate by CoV proteases, however, dissociates the EDANS fragment from DABCYL, restoring the fluorescence of the EDANS moiety that is directly correlated to the CoV protease activity.

Product Information

Amino Acid Sequence:	VNSTLQSGLRKM
Predicted Molecular Mass:	2034.36 kDa
Excitation Wavelength:	336 nm
Emission Wavelength:	455 nm
Cutoff:	420 nm
Extinction Coefficient:	5900 $cm^{-1}M^{-1}$
Purity:	≥ 95%
Formulation:	Lyophilized from a dimethylformamide (DMF) solution using vacuum drying.
Structure:	



Preparation and Storage

Storage:	Product stable at -20°C. Protect from prolonged exposure to light.
Stability:	Stable until expiry date (EXP) on label.
Preparation:	Centifuge vial before opening. Reconstitute the product in 25 µL (for Catalog #100-0509) or 250 µL (for Catalog #100-0510) of DMSO. Do not vortex. Prepare single-use aliquots and store at -20°C. Avoid repeated freeze-thaw cycles.

Directions For Use

To make a working solution, dilute 1 in 200 in 20 mM Tris buffer (pH 7.5) or buffer of your choice. Use 50 µL of substrate solution per assay in a 96-well plate. Use as directed in protocol of choice.