TEV Protease Protein, Tobacco etch virus (S2256N, C-His)

Cat. No.:	HY-P79151A
Synonyms:	Genome polyprotein; Tobacco Etch Virus Protease
Species:	Virus
Source:	E. coli
Accession:	NP_062908 (E2039-Q2279)
Gene ID:	1502321
Molecular Weight:	approximately 34 kDa

PROPERTIES

AA Sequence	E S L F K G P R D Y N P I S S T I C H L T N E S D G H T T S L Y G I G F G P F I I T N K H L F R R N N G T L L V Q S L H G V F K V K N T T T L Q Q H L I D G R D M I I I R M P K D F P P F P Q K L K F R E P Q R E E R I C L V T T N F Q T K S M S S M V S D T S C T F P S S D G I F W K H W I Q T K D G Q C G S P L V S T R D G F I V G I H S A S N F T N T N N Y F T S V P K N F M E L L T N Q E A Q Q W V S G W R L N A D S V L W G G H K V F M N K P E E P F Q P V K E A T Q L M N E L V Y S Q
Biological Activity	Measured by its ability to cleave a fusion protein containing the recognition sequence Glu-Asn-Leu-Tyr-Phe-Gln, with the cleavage point after Gln. TEV Protease cleaves ≥50% of the control substrate.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of 50 mM Tris-HCL, 300 mM NaCl, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	TEV Protease plays a crucial role in aphid transmission and exhibits proteolytic activity, specifically cleaving a Gly-Gly dipeptide at its own C-terminus. Beyond its proteolytic function, TEV Protease interacts with virions and aphid stylets,

contributing to its significance in the aphid transmission process. Additionally, TEV Protease acts as a suppressor of RNA-mediated gene silencing, a plant viral defense mechanism, thus modulating the accumulation of viral RNAs. Its potential RNA-binding activity and helicase function suggest its involvement in replication processes. The multifaceted roles of TEV Protease underscore its importance in various aspects of viral infection and host-pathogen interactions.

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