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Anti-TEV Protease (Rabbit) Antibody

TEV Protease Antibody
Catalog # ASR4435

Specification

Anti-TEV Protease (Rabbit) Antibody - Product Information

Host	**Rabbit**
Conjugate	**Unconjugated**
Target Species	**Tobacco Etch Virus**
Clonality	**Polyclonal**
Application	**WB, E, I, LCI**
Application Note	**This protein A purified antibody has been tested for use in western blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 27 kDa in size corresponding to TEV by western blotting in the appropriate cell lysate or extract. Anti-TEV protease may be useful to detect residual TEV protease in preparations of recombinant proteins in which that protease may interfere with downstream manipulations.**
Physical State	**Liquid (sterile filtered)**
Buffer	**0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2**
Immunogen	**This protein-A purified antibody was prepared from whole rabbit serum produced by repeated immunizations with recombinant MBP-and-poly-His-tagged auto inactivation-resistant mutant TEV Protease.**
Preservative	**0.01% (w/v) Sodium Azide**

Anti-TEV Protease (Rabbit) Antibody - Additional Information

Gene ID 1502321

Other Names
1502321

Purity
This product was protein-A purified and cross-adsorbed against MBP from monospecific antiserum by chromatography. Assay by western blot showed no reactivity to MBP.

Storage Condition
Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Precautions Note
This product is for research use only and is not intended for therapeutic or diagnostic applications.

Anti-TEV Protease (Rabbit) Antibody - Protein Information

Name POLG

Function
[Helper component proteinase]: Required for aphid transmission and also has proteolytic activity. Only cleaves a Gly-Gly dipeptide at its own C-terminus (PubMed:2656254). Interacts with virions and aphid stylets (PubMed:9880030). Acts as a suppressor of RNA-mediated gene silencing, also known as post-transcriptional gene silencing (PTGS), a mechanism of plant viral defense that limits the accumulation of viral RNAs (PubMed:11414807). May have RNA-binding activity. [Nuclear inclusion protein B]: An RNA-dependent RNA polymerase that plays an essential role in the virus replication.

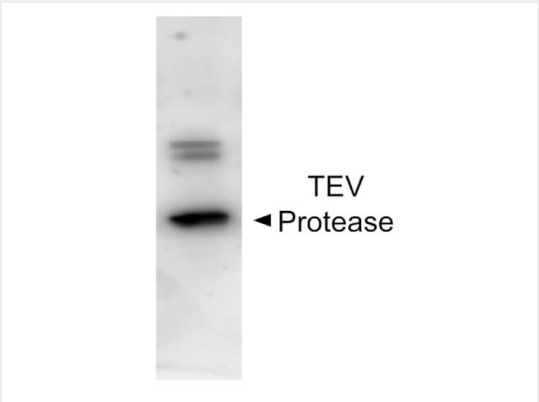
Cellular Location
[6 kDa protein 1]: Host cytoplasmic vesicle. Note=Probably colocalizes with 6K2-induced vesicles associated with host chloroplasts. {ECO:0000250|UniProtKB:P13529} [Viral genome-linked protein]: Host nucleus {ECO:0000250|UniProtKB:P21231}. Note=Binds to host plant eIF4E proteins in the host nucleus. {ECO:0000250|UniProtKB:P21231}

Anti-TEV Protease (Rabbit) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-TEV Protease (Rabbit) Antibody - Images



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Ecoli lysate containing recombinant TEV protease was loaded on to a 4-20% gradient gel for separation. After electrophoresis, the gel was blocked with 1% BSA (p/n BSA-30) in TBS for 30min at ambient. The membrane was probed with the primary antibody at a 1:1,000 dilution in 1%BSA/TBS overnight at 4° C. For detection HRP conjugated Gt-a-Rabbit IgG (p/n 611-103-122) was used at a 1:40,000 dilution for 30 min at ambient and data generated with FemtoMax™ enhanced chemiluminescent reagent (p/n FEMTOMAX-100). Images were captured using BioRad Versadoc 4000MP Imaging System. Expect a band approximately 27 kDa.

Anti-TEV Protease (Rabbit) Antibody - Background

TEV protease, encoded by the Tobacco Etch Virus (TEV), is a 27 kDa catalytic domain of the Nuclear Inclusion a (NIa) protein encoded by the virus (TEV). It is widely used for cleaving fusion proteins because of its sequence specificity. It recognizes a linear epitope of the general form E-Xaa-Xaa-Y-Xaa-Q-(G/S). Cleavage occurs between Q and G or Q and S. The structure of TEV protease is similar to that of the serine protease family. Like serine proteases, TEV protease utilizes a catalytic triad of residues to hydrolyze peptide bonds. The distinguishing feature of TEV protease, however, is that instead of the serine nucleophile in the triad Ser-Asp-His, there is a cysteine, which may explain the resistance of TEV protease to protease inhibitors which are commonly used. The strain used is the auto inactivation-resistant mutant S219V. The catalytic activity of the S219V mutant is approximately 2 fold greater than that of the wild-type protease.