TEV protease

TEV protease is an engineered catalytic domain of the Tobacco Etch Virus Nla cysteine protease which is used to remove fusion tags from purified proteins. ATUM (formerly DNA2.0) offers vectors with a TEV protease recognition site (ENLYFQ/G) between the tag and the ORF. The enzyme is His-tagged and affinity purified.

Catalog Number: ENZ-01

Amount: 1 mg affinity purified TEV-His protease in 50 mM Tris-HCl, pH 8, 150 mM NaCl, 40% glycerol, 1 mM DTT at 1 mg/ml.

Storage: Store at -20°C.

Activity: TEV protease (100 µg/ml) shows 100% activity at 4°C overnight or 30°C for 1 hour in buffer with 50 mM Tris-HCl, pH 8, 150 mM NaCl and 1 mM DTT. While TEV protease cleaves both on and off-column, it is more efficient in solution (off-column).

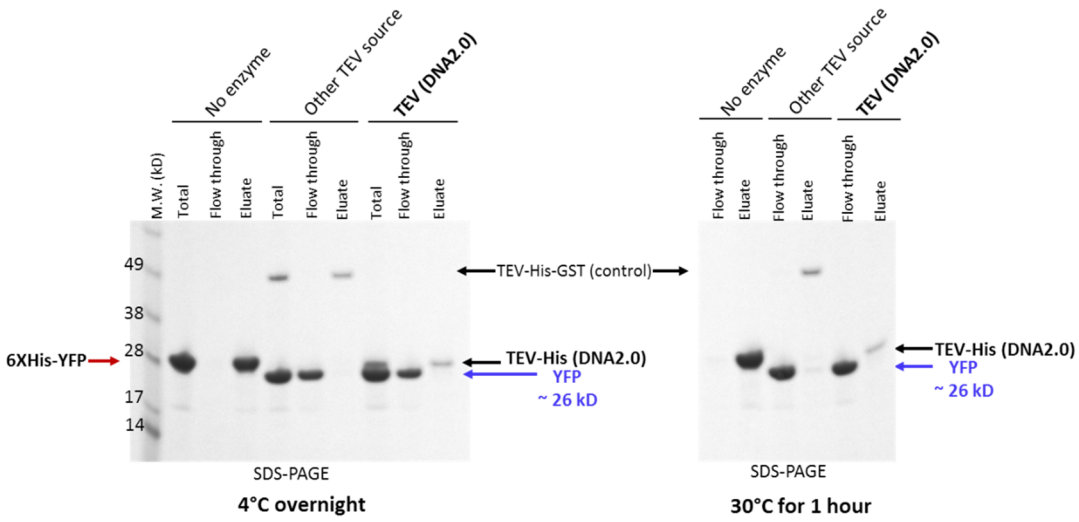

Figure: Purification of KringleYFP following cleavage with TEV protease. KringleYFP with N-terminal 6XHis and TEV cleavage site ~28kD band (shown by red arrow) was cleaved with 100 µg/ml TEV protease at 4°C O/N or at 30°C for 1 hour. Commercially available TEV-His-GST protease was used for comparison; 'no enzyme' samples were run as negative controls. A SDS-PAGE gel was run with total (load), flow through and eluted fractions from an IMAC column and Coomasie stained. Total fraction shows KringleYFP and the TEV protease in samples treated with TEV protease (bands shown by black and blue arrows); flow through fractions showed only the His tag cleaved KringleYFP, seen as ~ 26kD band (shown by blue arrows) in TEV protease treated samples; no cleavage of KringleYFP-His was seen in the 'no enzyme' control. TEV protease cleaves efficiently at 4°C or 30°C. Although KringleYFP is stable at 30°C for fast TEV protease cleavage, for other proteins we recommend testing stability of your protein before incubation at 30°C.

Physical properties: A modified 27 kDa TEV protease construct containing a 6XHis tag for easy removal using His affinity media.

Applications: TEV protease is an efficient tool for fusion protein cleavage in solution or immobilized TEV protease on streptavidin-agarose. ATUM vectors with TEV cleavage sites are catalog #s:

Catalog #	Feature
pD441-NHT	T5 promoter, N-term His, TEV cleavage site
pD441-PpiBT	T5 promoter, N-term PpiB tag, TEV cleavage site
pD861-NHT	Rham promoter, N-term His, TEV cleavage site
pD861-PpiBT	Rham promoter, N-term PpiB, TEV cleavage site
pD881-PpiBT	Rham promoter, N-term PpiB, TEV cleavage site, low copy

Intellectual Property Statement

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