

# Temperature sensitive Protease-V25

**Catalogue number:** 160831

**Sub-type:**

**Images:**

## Contributor

**Inventor:**

**Institute:** The University of Victoria

**Images:**

## Tool details

**\*FOR RESEARCH USE ONLY**

**Name:** Temperature sensitive Protease-V25

**Alternate name:** V25

**Class:**

**Conjugate:**

**Description:** This novel temperature sensitive protease, a variant of subtilisin Carlsberg (SubC) protease, is expressed in *Bacillus subtilis*. Variant 25 (V25) has been shown to be capable of degrading a broad range of proteins in their native or denatured state. V25 has properties that allow it to digest a substrate at elevated temperatures in the 55-60°C range and still be deactivated at a moderate temperature in the range of 60-65°C. All activity is destroyed after a 10 minute incubation at 60°C (See Figure above.). Due to the unique properties of V25 this variant has been shown to be useful in denaturing proteins in a complex mixture while retaining the ability to inactivate the enzyme below 65°C. It has also been shown to improve molecular biology research, automated processes like Next-Gen Sequencing and disease diagnostics workflows. No column purification or treatment at extreme temperatures are required to completely deactivate this variant. This protease remains active in the presence of detergent such as SDS and Triton X-100.

**Purpose:**

**Parental cell:**

**Organism:**

**Tissue:**

**Model:**

**Gender:**

**Isotype:**

**Reactivity:**

**Selectivity:**

**Host:**

**Immunogen:**

**Immunogen UNIPROT ID:**

**Sequence:**

**Growth properties:**

**Production details:**

**Formulation:**

**Recommended controls:**

**Bacterial resistance:**

**Selectable markers:**

**Additional notes:** Canadian Patent Application No. 3028612 US Patent No. 10894954

## Target details

**Target:**

**Target alternate names:**

**Target background:**

**Molecular weight:**

**Ic50:**

## Applications

**Application:**

**Application notes:**

## Handling

**Format:**

**Concentration:**

**Passage number:**

**Growth medium:**

**Temperature:**

**Atmosphere:**

**Volume:**

**Storage medium:**

**Storage buffer:**

**Storage conditions:** Activity remains stable over several months when the protease is stored at 4° C or lower. When stored at -80° C the protease remains stable for up to two years.

**Shipping conditions:**

## Related tools

**Related tools:** Temperature sensitive Protease-V24

## References

**References:** Thompson et al. 2020. FEMS Microbiol Lett. 367(19):. PMID: 33016320.

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