

# PRODUCT INFORMATION



## Aprotinin

Item No. 14716

CAS Registry No.: 9087-70-1

Synonyms: Bovine Pancreatic Trypsin Inhibitor, BPTI

MF:  $C_{284}H_{432}N_{84}O_{79}S_7$

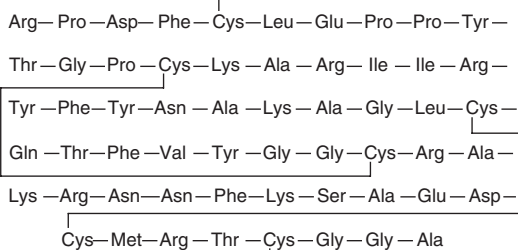
FW: 6,511.4

Supplied as: A crystalline solid

Storage: 4°C

Stability:  $\geq 2$  years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.



### Laboratory Procedures

Aprotinin is supplied as a crystalline solid. A stock solution may be made by dissolving the aprotinin in the solvent of choice, which should be purged with an inert gas. Aprotinin is slightly soluble in ethanol, DMSO and dimethyl formamide.

### Description

Aprotinin is a reversible inhibitor of serine proteases such as trypsin ( $K_i = 0.06$  pM), chymotrypsin ( $K_i = 9.5$  nM), and kallikrein ( $K_i = 0.8$  nM).<sup>1</sup> It is a much weaker inhibitor of thrombin ( $K_i = 0.1$ -0.8 mM) and trypsinogen ( $K_i = 2$   $\mu$ M).<sup>1</sup> Aprotinin also competitively inhibits nNOS and iNOS with  $K_i$  values of 50 and 78  $\mu$ M, respectively.<sup>2</sup> Aprotinin is widely used as a protein purification tool to prevent proteases present in tissue samples from degrading the protein of interest.

### References

1. Capasso, C., Rizzi, M., Menegatti, E., *et al.* Crystal structure of the bovine  $\alpha$ -chymotrypsin: Kunitz inhibitor complex. An example of multiple protein:protein recognition sites. *J. Mol. Recognit.* **10**(1), 26-35 (1997).
2. Venturini, G., Colasanti, M., and Ascenzi, P. Aprotinin, the first competitive protein inhibitor of NOS activity. *Biochem. Biophys. Res. Commun.* **249**, 263-265 (1998).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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