

# PRODUCT INFORMATION



## PPACK (trifluoroacetate salt)

Item No. 15160

**Formal Name:** D-phenylalanyl-N-[(1S)-4-[(aminoiminomethyl)amino]-1-(2-chloroacetyl)butyl]-L-prolinamide, trifluoroacetate salt

**Synonyms:** Pebac, D-Phenylalanyl-prolyl-arginyl Chloromethyl Ketone, D-Phe-Pro-Arg-CH<sub>2</sub>Cl

**MF:** C<sub>21</sub>H<sub>31</sub>ClN<sub>6</sub>O<sub>3</sub> • XCF<sub>3</sub>COOH

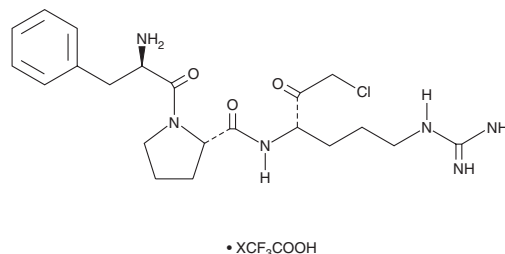
**FW:** 451.0

**Purity:** ≥95%

**Supplied as:** A crystalline solid

**Storage:** -20°C

**Stability:** ≥4 years



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

### Laboratory Procedures

PPACK (trifluoroacetate salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the PPACK (trifluoroacetate salt) in the solvent of choice. PPACK (trifluoroacetate salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of PPACK (trifluoroacetate salt) in ethanol is approximately 20 mg/ml and approximately 33 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of PPACK (trifluoroacetate salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of PPACK (trifluoroacetate salt) in PBS, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

PPACK is a synthetic peptide derivative that irreversibly and specifically inhibits thrombin-mediated platelet activation by binding with high affinity to the active site of thrombin ( $K_i = 0.24$  nM).<sup>1-3</sup> It has been used as an anticoagulant (100  $\mu$ M) and to study thrombin-mediated fibrin deposition, angiogenesis, and proinflammatory processes.<sup>4,5</sup>

### References

1. Kovach, I.M., Kelley, P., Eddy, C., *et al. Biochemistry* **48**(30), 7296-7304 (2009).
2. Bode, W., Turk, D., and Karshikov, A. *Protein Sci.* **1**(4), 426-471 (1992).
3. Hanson, S.R. and Harker, L.A. *Proc. Natl. Acad. Sci. USA* **85**(9), 3184-3488 (1988).
4. Lyon, M.E., Fine, J.S., Henderson, P.J., *et al. Clin. Chem.* **41**(7), 1038-1041 (1995).
5. Liu, J.F., Hou, S.M., Tsai, C.H., *et al. Arthritis Res. Ther.* **14**(2), R91 (2012).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 10/31/2023

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897

[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM