

# Pefabloc<sup>®</sup>TH (Pefa-3204)

**Description:** The benzamidine moiety is a key structure for the development of inhibitors of trypsin-like enzymes. It mimics the protonated side-chain of the basic amino acids Arg and Lys which is hydrolysed by these enzymes. Pefabloc<sup>®</sup>TH (NAPAP) is one of the most potent and selective competitive inhibitors of thrombin.

**Application:** Pefabloc<sup>®</sup>TH can be used in diagnostic systems, analytical applications, research and industrial purification processes to exclude undesired thrombin activity. It can also be used as a potent anticoagulant in *in vitro* test systems.

**Formula:** C<sub>27</sub>H<sub>31</sub>O<sub>4</sub>N<sub>5</sub>S·AcOH **MW:** 581.7

**Chem. name:** N $\alpha$ -(2-Naphthylsulfonylglycyl)-4-amidino-(D,L)-phenylalanine piperidide acetate (NAPAP)

**Solubility:** 1.5 mg/ml (2.6 mM) in H<sub>2</sub>O

**Storage:** May be used by the expiry date given on the label when stored unopened, protected from moisture, in the dark, 2-8°C. Avoid contamination of the reagents by micro-organisms. Shipment of product does not require cooling during the time of transportation.

**K<sub>i</sub> constants:** K<sub>i</sub> values for the inhibition of several trypsin-like serine proteases by Pefabloc<sup>®</sup>TH

Enzyme	K <sub>i</sub> [μM]
Trypsin	0.69
Thrombin (bovine)	0.006
Factor Xa	7.9
Factor XIIa	450
Plasmin	30
uPA	230
sc-tPA	430
tc-tPA	70
Plasma kallikrein	14.4
Glandular kallikrein	93
Acrosin	2.9
Batroxobin (B. atrox)	1.7
Batroxobin (B. moojeni)	3.8
PCa	4.8
Tryptase	45
Chymotrypsin	625

**References:** Stürzebecher J, Walsmann P, Voigt B, Wagner G. Inhibition of bovine and human thrombins by derivatives of benzamidine. *Thromb Res* 1984; 36: 457-65.

**Package size:** Bulk [mg] **Code:** 381-01  
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