

# Pefabloc<sup>®</sup> TH1158 (Pefa-1158)

- Description:** Pefabloc<sup>®</sup> TH1158, a 3-amidinophenylalanine derivative, is a synthetic low molecular weight competitive inhibitor selective for thrombin. Compared with other inhibitors for thrombin, its solubility in water is significantly improved.
- Application:** Pefabloc<sup>®</sup> TH1158 can be used in diagnostic assays, 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>32</sub>O<sub>4</sub>N<sub>6</sub>S·HCl **MW:** 573.1
- Chem. name:** N $\alpha$ -(2-Naphthylsulfonyl)-3-amidino-(D,L)-phenylalanine-4-dimethylcarbamoyl-piperazide hydrochloride
- Solubility:** 100 mg/ml (175 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> TH1158.

Enzyme	K <sub>i</sub> [ $\mu$ M]
Trypsin	0.17
Thrombin	0.0088
Factor Xa	24
Factor XIIa	200
Plasmin	6.1
uPA	35
sc-tPA	> 1000
Plasma kallikrein	47
Glandular kallikrein	> 1000
PCa	17
Tryptase	3.6

- References:** Stürzebecher J, Prasa D, Hauptmann J, Vieweg H, Wikström P.  
Synthesis and structure-activity relationship of potent thrombin inhibitors: Piperazides of 3-Amidinophenylalanine.  
J Med Chem 1997; 40: 3091-99.

**Package size:** Bulk [mg] **Code:** 381-02  
FOR RESEARCH USE ONLY. NOT FOR HUMAN USE OR DRUG USE.