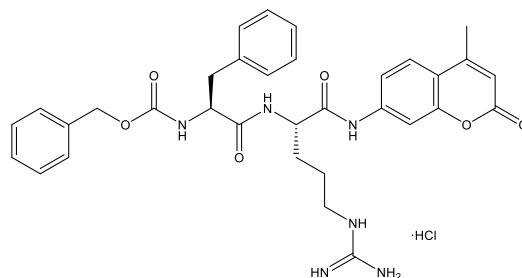




Catalog # 10-5385
Z-Phe-Arg-AMC · HCl
 CAS# 70382-26-2
 Z-FR-AMC; CBZ-Phe-Arg-AMC, hydrochloride
 Lot # X105442



Fluorogenic substrate¹ for the following cathepsins (k_{cat}/K_m in $M^{-1}s^{-1}$): B (10^5)², C/DPP-I (10^4)³, F (10^6)⁴, K/O2 (10^5)³, L (10^6)³, L2/V (10^5)⁵, O⁶, S (10^4)⁷, X/Z (10^4)⁸. The peptide is also cleaved by plasma kallikrein and kallikrein 8⁹, and papain ($k_{cat}/K_m=10^5 M^{-1}s^{-1}$)³. Excitation: 365nm, Emission: 440nm.⁵

- 1) Tavares *et al.* (2004), *Design of potent, selective, and orally bioavailable inhibitors of cysteine protease cathepsin k*; J. Med. Chem., **47** 588
- 2) Therrien *et al.* (2001), *Cathepsins X and B can be differentiated through their respective mono- and dipeptidyl carboxypeptidase activities*; Biochemistry, **40** 2702
- 3) Nägler *et al.* (1999), *Interdependency of sequence and positional specificities for cysteine proteases of the papain family*; Biochemistry, **38** 4868
- 4) Wang *et al.* (1998), *Human cathepsin F. Molecular cloning, functional expression, tissue localization, and enzymatic characterization*; J. Biol. Chem., **273** 32000
- 5) Brömme *et al.* (1999), *Human cathepsin V functional expression, tissue distribution, electrostatic surface potential, enzymatic characterization and chromosomal localization*; Biochemistry, **38** 2377
- 6) Velasco *et al.* (1994), *Human cathepsin O. Molecular cloning from a breast carcinoma, production of the active enzyme in Escherichia coli, and expression analysis in human tissues*; J. Biol. Chem., **269** 27136
- 7) Kopitar *et al.* (1996), *Folding and activation of human procathepsin S from inclusion bodies produced in Escherichia coli*; Eur. J. Biochem., **236** 558
- 8) Klemenčič *et al.* (2000), *Biochemical characterization of human cathepsin X revealed that the enzyme is an exopeptidase, acting as carboxymonopeptidase or carboxydipeptidase*; Eur. J. Biochem., **267** 5404
- 9) Kishi *et al.* (2006), *Activation and enzymatic characterization of recombinant human kallikrein 8*; Biol. Chem., **387** 723

PHYSICAL DATA

Molecular Weight: 649.14
 Molecular Formula: C₃₃H₃₆N₆O₆ · HCl
 Purity: >98% by HPLC
 Amino acid analysis and identity: Confirmed
 Peptide Content: 94%

Solubility: DMSO (up to at least 50 mg/ml)
 Physical Description: White solid
 Storage and Stability: Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months. **Protect from light**

Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.