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C9521 **Sigma-Aldrich.**

Z-Phe-Arg 7-amido-4-methylcoumarin hydrochloride

★★★★★ (0)

kallikrein substrate

Synonyme(s):

Z-Phe-Arg-AMC

Empirical Formula (Hill Notation):

C₃₃H₃₆N₆O₆ · HCl

Numéro CAS: **70382-26-2**

Poids moléculaire: 649.14

Numéro MDL: **MFCD00077030**

ID de substance PubChem: **24893165**

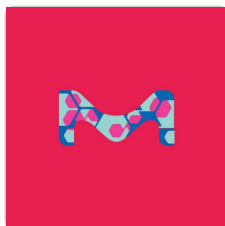
NACRES: NA.32

Référence	Conditionnement	Disponibilité	Prix	Quantité
C9521-25MG	25 MG	Only 3 left in stock (more on the way) Détails...	439,00 €	<input type="text" value=""/> <input type="text" value=""/>
C9521-100MG	100 MG	Date d'expédition estimée le 03 novembre 2022	1490,00 €	<input type="text" value=""/> <input type="text" value=""/>

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PRODUITS RECOMMANDÉS

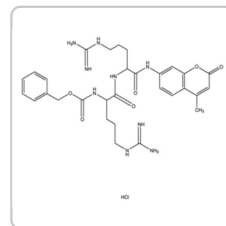


Sigma-Aldrich

03-32-1501

**Z-Phe-Arg-7-amido-4-methylcoumarin,
Hydrochloride - CAS 70382-26-2 - Calbiochem**

Substrate for fluorogenic assay of plasma and glandular kallikreins.

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Sigma-Aldrich

C5429

**Z-Arg-Arg-7-amido-4-methylcoumarin
hydrochloride**

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PROPRIÉTÉS

Niveau de qualité	100
Essai/Dosage	≥95% (HPLC)
Forme	powder
Concentration	≥95%
Solubilité	methanol: 20 mg/mL, clear, colorless
Temp. de stockage	-20°C
SMILES string	<chem>O=C(N[C@@H](CC1=CC=CC=C1)C(N[C@@H](CCCNC(N)=N)C(NC2=CC=C(C(C)=CC(O3)=O)C3=C2)=O)OCC4=CC=CC=C4.[Cl]</chem>

InChI	1S/C33H36N6O6/c1-21-17-29(40)45-28-19-24(14-15-25(21)28)37-30(41)26(13-8-16-36-32(34)35)38-31(42)27(18-22-9-4-2-5-10-22)39-33(43)44-20-23-11-6-3-7-12-23/h2-7,9-12,14-15,17,19,26-27H,8,13,16,18,20H2,1H3,(H,37,41)(H,38,42)(H,39,43)(H4,34,35,36)
InChI key	ZZGDBBWFMDMARY-UHFFFAOYSA-N

DESCRIPTION

Description générale

Z-Phe-Arg 7-amido-4-methylcoumarin (Z-FR-AMC) is a peptidomimetic substrate for papain and other enzymes such as cathepsin K. It is also a fluorogenic synthetic peptide for the enzymes cathepsins L and B.

Application

Z-Phe-Arg 7-amido-4-methylcoumarin hydrochloride has been used:

- as a fluorogenic substrate in actinidin inhibition assay
- as a kallikrein substrate
- as a trypsin substrate for fluorometric assay
- as a cathepsin-L substrate

Conditionnement

25 mg in glass insert

100 mg in glass bottle

Actions biochimiques/physiologiques

Z-Phe-Arg 7-amido-4-methylcoumarin (Z-FR-AMC) proteolytic lysis by proteases leads to the liberation of AMC resulting in increased fluorescence in the enzymatic reaction.

Substrats

A fluorogenic substrate for plasma kallikrein.

INFORMATIONS SUR LA SÉCURITÉ

Code de la classe de stockage

11 - Combustible Solids

WGK

WGK 3

Flash Point(F)

Not applicable

Point d'éclair C

Not applicable

Équipement de protection individuelle

Eyeshields, Gloves, type N95 (US)

DOCUMENTATION

Certificat d'analyse

Saisir un numéro de lot pour rechercher un certificat d'analyse (COA).

Numéro de lot

e.g. 023J5431

Comment saisir un numéro de lot (COA)

Rechercher

Certificat d'origine

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Numéro de lot

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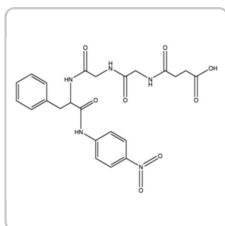
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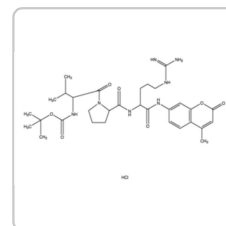


Sigma-Aldrich

S1899

N-Succinyl-Gly-Gly-Phe-*p*-nitroanilide

protease substrate



Sigma-Aldrich

B9385

Boc-Val-Pro-Arg-7-amido-4-methylcoumarin hydrochloride

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ARTICLES REVUS PAR DES PAIRS

Biochemical properties of purified cathepsin B from *Schistosoma mansoni*.

H Ghoneim et al.

International journal for parasitology, 25(12), 1515-1519 (1995-12-01)

A previously described "major acidic proteinase" of adult *Schistosoma mansoni*, believed to play a key role in the parasite's metabolism, has been identified as a cathepsin B (Sm31). Purified Sm cathepsin B was not recognized by anti-Sm32 or anti-cathepsin L

Plasmodium falciparum: effects of proteinase inhibitors on globin hydrolysis by cultured malaria parasites.

P J Rosenthal

Experimental parasitology, 80(2), 272-281 (1995-03-01)

The effects of peptide proteinase inhibitors on globin hydrolysis by cultured malaria parasites were studied. All of the four cysteine proteinase inhibitors evaluated blocked globin hydrolysis, as documented by the development of a morphological abnormality in which parasite food vacuoles

Role of the occluding loop in cathepsin B activity.

C Illy et al.

The Journal of biological chemistry, 272(2), 1197-1202 (1997-01-10)

Within the lysosomal cysteine protease family, cathepsin B is unique due to its ability to act both as an endopeptidase and a peptidyl dipeptidase. This latter capacity to remove C-terminal dipeptides has been attributed to the presence of a 20-residue insertion

Identification of essential residues of CTLA-2alpha for inhibitory potency.

R M C Deshapriya et al.

Journal of biochemistry, 147(3), 393-404 (2009-11-17)

To identify functionally essential sequences and residues of CTLA-2alpha, in vitro mutagenesis was carried out. The coefficient of inhibition (K(i)) was determined towards rabbit cathepsin L using Z-Phe-Arg-MCA as the substrate. Recombinant CTLA-2alpha inhibited the enzyme potently

(K(i) = 15)

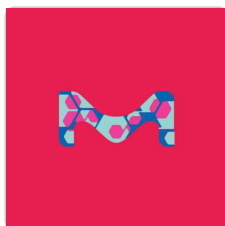
Increasing in cysteine proteinase B expression and enzymatic activity during in vitro differentiation of *Leishmania (Viannia) braziliensis*: First evidence of modulation during morphological transition.

Cinthia Bernardes Gomes et al.
Biochimie, 133, 28-36 (2016-12-07)

Leishmania (Viannia) braziliensis presents adaptive protease-dependent mechanisms, as cysteine proteinases B (CPB). This study investigates the expression of three cpb gene isoforms and CPB enzymatic activity during the parasite differentiation. Relative expression levels of LbrM.08.0810 gene were assessed, exhibiting a

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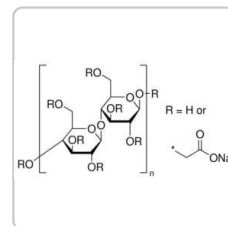


Sigma-Aldrich

C9473

Complement Serum Standard human
aqueous solution

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Sigma-Aldrich

C9481

Carboxymethylcellulose sodium

meets USP testing specifications, Medium viscosity

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Évaluations



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Notre équipe de scientifiques dispose d'une expérience dans tous les secteurs de la recherche, notamment en sciences de la vie, science des matériaux, synthèse chimique, chromatographie, analyse et dans de nombreux autres domaines..

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