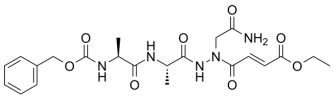
RR-11a analog

Cat. No.:	HY-112205A
CAS No.:	685543-66-2
Molecular Formula:	$C_{22}H_{29}N_5O_8$
Molecular Weight:	491.49
Target:	Parasite; Legumain
Pathway:	Anti-infection
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (254.33 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.0346 mL	10.1731 mL	20.3463 mL
5 mM	0.4069 mL	2.0346 mL	4.0693 mL
10 mM	0.2035 mL	1.0173 mL	2.0346 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (4.23 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (4.23 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.23 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

RR-11a analog is a potent and irreversible inhibitor of ***Schistosoma mansoni*** legumain, with an IC_{50} of 31 nM. RR-11a analog is an aza-Asn derivative and aza-peptide Michael acceptor[1][2].

IC_{50} & Target

IC50: 31 ± 25 nM (Schistosoma mansoni legumain)[2]

In Vivo

RR-11a analog has a half-live of 3-10 min[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Cancer Immunol Res. 2022 Apr 12;canimm.0559.2021.
- ACS Appl Nano Mater. July 23, 2021.

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REFERENCES

[1]. Ekici OD, et al. Aza-peptide Michael acceptors: a new class of inhibitors specific for caspases and other clan CD cysteine proteases. J Med Chem. 2004 Apr 8;47(8):1889-92.

[2]. Götz MG, et al. Aza-peptidyl Michael acceptors. A new class of potent and selective inhibitors of asparaginyl endopeptidases (legumains) from evolutionarily diverse pathogens. J Med Chem. 2008 May 8;51(9):2816-32.

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