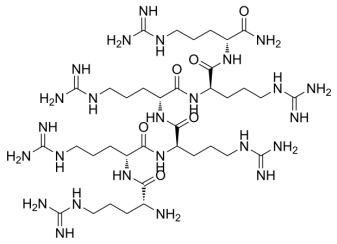
Hexa-D-arginine

Cat. No.:	HY-P1028
CAS No.:	673202-67-0
Molecular Formula:	$C_{36}H_{75}N_{25}O_6$
Molecular Weight:	954.14
Sequence Shortening:	RRRRRR-NH2
Target:	Bacterial
Pathway:	Anti-infection
Storage:	Sealed storage, away from moisture Powder -80°C 2 years -20°C 1 year * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

H_2O : 50 mg/mL (52.40 mM; Need ultrasonic)
DMSO : 5 mg/mL (5.24 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	1.0481 mL	5.2403 mL	10.4806 mL
	5 mM	0.2096 mL	1.0481 mL	2.0961 mL
	10 mM	0.1048 mL	0.5240 mL	1.0481 mL

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

In Vivo

1. Add each solvent one by one: PBS
Solubility: 100 mg/mL (104.81 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

Hexa-D-arginine (Furin Inhibitor II) is a stable furin inhibitor with K_i values 106 nM, 580 nM and 13.2 μM for furin, PACE4 and prohormone convertase-1 (PC1), respectively. Hexa-D-arginine blocks Pseudomonas exotoxin A and anthrax toxins toxicity in vitro and in vivo[1][2][3].

IC_{50} & Target

Ki: 106 nM (Furin), 580 nM (PACE4) and 13.2 μM (PC1)[3]

In Vitro

Hexa-D-arginine effectively blocks Pseudomonas aeruginosa exotoxin A (PEA)-induced cell lysis and is itself noncytotoxic[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Administration of Hexa-D-arginine (0.1, 1, or 10 nM) to Pseudomonas aeruginosa exotoxin A (PEA)-treated mice (6-week-old

FVB and 129/Sv mice) significantly improves their survival rate and also decreases circulating levels of TNF-α[1].

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

CUSTOMER VALIDATION

- Oncogenesis. 2020 Aug 26;9(8):76.
- Antiviral Res. 2023 Apr 17;105606.
- Chembiochem. 2018 May 18;19(10):1060-1065.

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REFERENCES

[1]. Sarac MS, et al. The furin inhibitor hexa-D-arginine blocks the activation of Pseudomonas aeruginosa exotoxin A in vivo. Infect Immun. 2002 Dec;70(12):7136-9.

[2]. Sarac MS, et al. Protection against anthrax toxemia by hexa-D-arginine in vitro and in vivo. Infect Immun. 2004 Jan;72(1):602-5.

[3]. Cameron A, et al. Polyarginines are potent furin inhibitors. J Biol Chem. 2000 Nov 24;275(47):36741-9.

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