P8RI

Cat. No.: HY-P3325

CAS No.: 2147724-76-1

Molecular Formula: $C_{51}H_{77}N_{13}O_9$

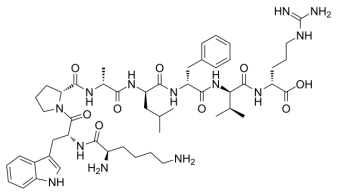
Molecular Weight: 1016.24

Sequence Shortening: KWPALFVR

Target: Others

Pathway: Others

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 : 100 mg/mL (98.40 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	0.9840 mL	4.9201 mL	9.8402 mL
	5 mM	0.1968 mL	0.9840 mL	1.9680 mL
	10 mM	0.0984 mL	0.4920 mL	0.9840 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 (98.40 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

P8RI (D-P8RI) is a biomimetic peptide of CD31 and a CD31 agonist. P8RI binds to the juxtamembrane amino acid sequence of the ectodomain of CD31, shows an immunosuppressive effect through restoration of the CD31 inhibitory pathway[1][2].

In Vitro

P8RI (D-P8RI) was designed as a retro-inverso peptide with all-D-amino acids allowing to maintain bioactivity and to confer resistance towards plasma proteases[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

P8RI (2.5 mg/kg; s.c.; daily from 7 to 28 after the occurrence of ADIM) prevents aneurysmal transformation by promoting the resolution of intramural hematoma and the production of collagen in dissected aortas in vivo, associated with enrichment of M2 macrophages at the site of injury[3].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Apo E $^{-/-}$ mice (male, 28-week-old) implanted with Ang II-releasing pumps (a model of experimental acute aortic dissection and intramural hematoma (ADIM))[3]
Dosage:	2.5 mg/kg
Administration:	Subcutaneous injection; daily from 7 to 28 (after the implantation of the osmotic pump delivering Ang II)
Result:	Aneurysmal transformation was significantly reduced.

REFERENCES

[1]. Diaz-Rodriguez S, et al. Coronary stent CD31-mimetic coating favours endothelialization and reduces local inflammation and neointimal development in vivo. Eur Heart J. 2021;42(18):1760-1769.

[2]. Sannier A, et al. A CD31-Derived Peptide Prevents the Development of Antibody-Mediated Lesions in a Rat Model of Aortic Allograft. Transplant Proc. 2021;53(2):746-749.

[3]. Andreata F, et al. Macrophage CD31 Signaling in Dissecting Aortic Aneurysm. J Am Coll Cardiol. 2018;72(1):45-57.

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