Aclerastide

Cat. No.: HY-P2217

CAS No.: 227803-63-6

Molecular Formula: $C_{42}H_{64}N_{12}O_{11}$

Molecular Weight: 913.03

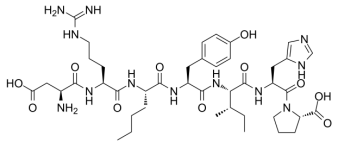
Sequence: Asp-Arg-{Nle}-Tyr-Ile-His-Pro

Sequence Shortening: DR-{Nle}-YIHP

Target: Angiotensin Receptor

Pathway: GPCR/G Protein

Storage: Sealed storage, away from moisture and light
Powder -80°C 2 years
-20°C 1 year
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (109.53 mM)
* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	1.0953 mL	5.4763 mL	10.9525 mL
	5 mM	0.2191 mL	1.0953 mL	2.1905 mL
	10 mM	0.1095 mL	0.5476 mL	1.0953 mL

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

BIOLOGICAL ACTIVITY

Description

Aclerastide (DSC-127) is an angiotensin receptor agonist. Aclerastide also is a peptide analog of angiotensin II. Aclerastide can be used for the research of tissue regeneration in diabetic ulcers[1][2].

In Vivo

Aclerastide (0.1 mg/wound; day for 5 days) shows superior efficacy in the db/db mouse model of wound healing[1].
Aclerastide (topically administered; 100 μL; once a day; for 14 days) elevates levels of reactive oxygen species and of active MMP-9[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	db/db mice[2]

Dosage:	100 μL
Administration:	Topically administered, once a day, for 14 days
Result:	Upregulated reactive oxygen species during inflammation. Increased the levels of the detrimental active MMP-9 in diabetic wounds.

REFERENCES

[1]. Kathleen E Rodgers, et al. Acceleration of healing, reduction of fibrotic scar, and normalization of tissue architecture by an angiotensin analogue, NorLeu3-A(1-7). Plast Reconstr Surg. 2003 Mar;111(3):1195-206.

[2]. Trung T Nguyen, et al. Expression of active matrix metalloproteinase-9 as a likely contributor to the clinical failure of aclerastide in treatment of diabetic foot ulcers. Eur J Pharmacol. 2018 Sep 5;834:77-83.

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