Auriculin A

Cat. No.:	HY-P3765
CAS No.:	91421-87-3
Molecular Formula:	$C_{104}H_{168}N_{38}O_{33}S_2$
Molecular Weight:	2542.81
Sequence Shortening:	RSSCFGGRIDRIGAQSGLGCNSFR (Disulfide bridge:Cys4-Cys20)
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description

Auriculin A is a synthetic atrial natriuretic factor (ANF) with hemodynamic effect. Auriculin A antagonizes renal vasoconstriction in the dog, and influences on arterial baroreflex control of heart rate, systemic blood pressure, and perfusion pressure in the hind limb (perfused at constant flow) in rabbits[1][2].

In Vivo

Auriculin A (0.3 μg/min/kg; i.v.; for 30 min) antagonizes renal vasoconstriction in the dog[1].
Auriculin A (2 μg/kg prime, 0.2 μg/kg/min; i.v.; for 45 min) influences on arterial baroreflex control of heart rate, systemic blood pressure, and perfusion pressure in the hind limb (perfused at constant flow) in rabbits[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Female mongrel dogs used in early clamp experiments (15-20 kg, anesthetized with 30 mg/kg pentobarbital sodium i.v.)[1]
Dosage:	0.3 μg/min/kg
Administration:	Intravenous injection; last for 30 min
Result:	Increased glomerular filtration rate (GFR) 16±4% and Na excretion (UNa V) 261±63%, whereas it decreased urine osmolality (Uosm) 36±7% without changing free water clearance. Also increased diuresis (V) and kaliuresis (UKV).

Animal Model:	New Zealand white male rabbits (3-3.5 kg, anesthetized with 50 mg/kg Chloralose (HY-B1020) and 500 mg/kg Urethane (HY-B1207) i.v.)[2]
Dosage:	0.5 μg/kg prime, 0.05 μg/kg/min; 2 μg/kg prime, 0.2 μg/kg/min; 4 μg/kg prime, 0.4 μg/kg/min; 8 μg/kg prime, 0.8 μg/kg/min
Administration:	Intravenous injection; last for 30-60 min
Result:	Significantly reduced mean blood pressure and increased mean perfusion pressure at 4 μg/kg prime, 0.4 μg/kg/min dose, while heart rate did not change.

REFERENCES

[1]. Sosa RE, et al. Relationship between renal hemodynamic and natriuretic effects of atrial natriuretic factor. Am J Physiol. 1986 Mar;250(3 Pt 2):F520-4.

[2]. Volpe M, et al. Vagal mediation of the effects of atrial natriuretic factor on blood pressure and arterial baroreflexes in the rabbit. Circ Res. 1987 May;60(5):747-55.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA