A 71915

Cat. No.:	HY-P2026
CAS No.:	132956-87-7
Molecular Formula:	$C_{69}H_{116}N_{26}O_{15}S_2$
Molecular Weight:	1613.95
Sequence:	Arg-Cys-{Cha}-Gly-Gly-Arg-Ile-Asp-Arg-Ile-{d-Tic}-Arg-Cys-NH2 (Disulfide bridge: Cys2-Cys13)
Sequence Shortening:	RC-{Cha}-GGRIDRI-{d-Tic}-RC-NH2 (Disulfide bridge: Cys2-Cys13)
Target:	Others
Pathway:	Others
Storage:	Sealed storage, away from moisture and light, under nitrogen 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, under nitrogen)

BIOLOGICAL ACTIVITY

Description	A 71915 is a highly potent and competitive natriuretic peptide receptor A (ANP, NPRA) antagonist (pK_i= 9.18). A 71915 displaces [^{125}I]ANP dose dependently, with a K_i of 0.65 nM. A71915(pA_2= 9.48) against rat ANP-induced cGMP production in NB-OK-1 cells[1].
IC_{50} & Target	A 71915 is a highly potent and competitive natriuretic peptide receptor A (ANP, NPRA) antagonist, with a pK_i of 9.18.
In Vitro	A 71915 combines to Neuroblastoma NB-OK-1 cells, is used in the Cyclic GMP assay. A 71915 shifts the ANP dose-response curve of cyclic GMP production to the right[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	A 71915 (5 μl; i.m.; 25-30 g male CD-1 mice) affects BNP (1 nmol)- and GRP (0.1 nmol)-induced scratching[2]. A 71915 (30 μg/ kg/ day) inhibits NS-398 on blood pressure decreased[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Rat (Male Sprague-Dawley); weighing 150-180 g[3]
Dosage:	30 μg/kg/day; infused for 3 weeks
Administration:	via a mini-osmotic pump
Result:	The inhibitory effect of NS-398 on blood pressure was attenuated by the pretreatment with A 71915 (30 μg/kg/day).

REFERENCES

[1]. Delporte C, et al. Discovery of a potent atrial natriuretic peptide antagonist for ANPA receptors in the human neuroblastoma NB-OK-1 cell line. Eur J Pharmacol.

1992;224(2-3):183-188.

[2]. Kiguchi N, et al. Spinal Functions of B-Type Natriuretic Peptide, Gastrin-Releasing Peptide, and Their Cognate Receptors for Regulating Itch in Mice.

[3]. Park BM, et al. Attenuation of renovascular hypertension by cyclooxygenase-2 inhibitor partly through ANP release. Peptides. 2015;69:1-8.

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