

Ularitide

Cat. No.:	HY-P2687
CAS No.:	118812-69-4
Molecular Formula:	C ₁₄₅ H ₂₃₄ N ₅₂ O ₄₄ S ₃
Molecular Weight:	3505.96
Sequence:	Thr-Ala-Pro-Arg-Ser-Leu-Arg-Arg-Ser-Ser-Cys-Phe-Gly-Gly-Arg-Met-Asp-Arg-Ile-Gly-Ala -Gln-Ser-Gly-Leu-Gly-Cys-Asn-Ser-Phe-Arg-Tyr (Disulfide bridge:Cys11-Cys27)
Sequence Shortening:	TAPRSLRRSSCFGGRMDRIGASGLGCNSFRY (Disulfide bridge:Cys11-Cys27)
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description	Ularitide (Urodilatin), natriuretic peptide, is a vasodilator. Ularitide binds to and activates renal receptors. Ularitide also regulates renal dopamine metabolism Ularitide can be used in the research of heart failure ^{[1][2][4][5]} .	
In Vitro	Ularitide increases the amount of cyclic nucleotides and decreases the raise in permeability in HUVEC cells ^[2] . Ularitide (1 nM-1 μM, 15 min) reverses methacholine-evoked contraction in bovine bronchi ^[3] . Ularitide (1 μM, 0-300 s) increases cyclic GMP levels in the presence of phosphoramidon in bovine bronchi ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
In Vivo	Ularitide (10 nmol/kg, s.c., once) increases in urine volume and sodium excretion in arteriovenous (AV) fistula dogs ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	Female dogs with or without surgically induced chronic aortocaval fistula ^[1]
	Dosage:	5 and 10 pmol/kg/min
	Administration:	i.v. infusions for for 75 min, and thereafter at 10 pmol/kg/min for another 75 min.
	Result:	Increased in urine volume and sodium excretion with high-output CHF.

REFERENCES

- [1]. Anker SD, et al. Ularitide for the treatment of acute decompensated heart failure: from preclinical to clinical studies. *Eur Heart J.* 2015 Mar 21;36(12):715-23.
- [2]. Korn C, et al. Comparison of the effects of ularitide acetate and other bronchorelaxing substances on the thrombin-induced permeability raise of human endothelial cell monolayers. *Arzneimittelforschung.* 1998 Mar;48(3):251-8.
- [3]. Nally JE, et al. Bronchodilator and pre-protective effects of urodilatin in bovine bronchi in vitro: comparison with atrial natriuretic peptide. *Br J Pharmacol.* 1995 Apr;114(7):1391-6.
- [4]. Valentin JP, et al. Urodilatin binds to and activates renal receptors for atrial natriuretic peptide. *Hypertension.* 1993 Apr;21(4):432-8.

Caution: Product has not been fully validated for medical applications. For research use only.

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