

Cenderitide

Cat. No.:	HY-P3624
CAS No.:	507289-11-4
Molecular Formula:	C ₁₅₈ H ₂₆₃ N ₄₉ O ₅₀ S ₃
Molecular Weight:	3745.27
Sequence Shortening:	GLSKGCFGLKLDRIQSMSGLGCPSLRDRPNAPSTSA (Disulfide bridge:Cys6-Cys22)
Target:	Guanylate Cyclase
Pathway:	GPCR/G Protein
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description	Cenderitide is a potent agonist of particulate guanylyl cyclase receptor (pGC). Cenderitide is a natriuretic peptide (NP) composed of C-type natriuretic peptide (CNP) fused to the C-terminus of Dendroaspis natriuretic peptide (DNP). Cenderitide activates both pGC-A and pGC-B, activates the second messenger cGMP, suppresses aldosterone, and preserves GFR without reducing blood pressure. Cenderitide can be used for heart failure research ^{[1][2][3]} .
In Vitro	Cenderitide has antiproliferative, anti-fibrotic, and anti-hypertrophic properties ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	In vivo in normal canines, Cenderitide (10, 50, and 100 ng/kg) is a potent cGMP stimulator that has renal enhancing and cardiac unloading effects, with less reduction of blood pressure ^{[1][4]} . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Ichiki T, et al. Natriuretic peptide based therapeutics for heart failure: Cenderitide: A novel first-in-class designer natriuretic peptide. *Int J Cardiol.* 2019 Apr 15;281:166-171.
- [2]. Wojta J. Cenderitide: a multivalent designer-peptide-agonist of particulate guanylyl cyclase receptors with considerable therapeutic potential in cardiorenal disease states. *Eur Heart J Cardiovasc Pharmacother.* 2016 Apr;2(2):106-7.
- [3]. Lisa C Costello-Boerrigter, et al. Cenderitide (CD-NP), a novel peptide designed to activate both guanylyl cyclase B and A, activates the second messenger cGMP, suppresses aldosterone, and preserves GFR without reducing blood pressure in a proof-of-concept study in patients with chronic heart failure. *BMC Pharmacol* 11 (Suppl 1), P18 (2011).
- [4]. Lisy O, et al. Design, synthesis, and actions of a novel chimeric natriuretic peptide: CD-NP. *J Am Coll Cardiol.* 2008 Jul 1;52(1):60-8.

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

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