

Data Sheet

Product Name:	Crustacean Cardioactive Peptide (CCAP)
Cat. No.:	CS-7052
CAS No.:	309247-84-5
Molecular Formula:	C42H58N10O12S2
Molecular Weight:	959.10
Target:	Others
Pathway:	Others
Solubility:	H2O : < 0.1 mg/mL (insoluble); DMSO : 50 mg/mL (52.13 mM); Need ultrasonic)

PFCNAFTGC

BIOLOGICAL ACTIVITY:

Crustacean Cardioactive Peptide (CCAP) is a highly conserved, amidated cyclic nonapeptide, first isolated from the pericardial organs of the shore crab *Carcinus maenas*, where it has a role in regulating heartbeat; Crustacean Cardioactive Peptide (CCAP) also modulates the neuronal activity in other arthropods. **In Vitro:** Ultrabithorax and Abdominal-A are not necessary for specification of the CCAP-interneurons, but are absolutely required to prevent the death by apoptosis of the CCAP-efferent neurons^[2]. **In Vivo:** CCAP, FMRFamide and SALDKNFMRFamide increase the mosquito antennal accessory pulsatile organ (APO) and heart contraction rates, increase hemolymph flow velocity in the antennal space^[1].

References:

[1]. Suggs JM, et al. CCAP and FMRFamide-like peptides accelerate the contraction rate of the antennal accessory pulsatile organs (auxiliary hearts) of mosquitoes. *J Exp Biol.* 2016 Aug 1;219(Pt 15):2388-95.

[2]. Moris-Sanz M, et al. The study of the Bithorax-complex genes in patterning CCAP neurons reveals a temporal control of neuronal differentiation by Abd-B. *Biol Open.* 2015 Aug 14;4(9):1132-42.

CAIndexNames:

L-Cysteine, L-prolyl-L-phenylalanyl-L-cysteinyl-L-asparaginyl-L-alanyl-L-phenylalanyl-L-threonylglycyl-

SMILES:

[PFCNAFTGC]

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

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