

Data Sheet

Product Name:	[Pyr1]-Apelin-13	
Cat. No.:	CS-7600	
CAS No.:	217082-60-5	
Molecular Formula:	C69H108N22O16S	
Molecular Weight:	1533.80	{Glp}-RPRLSHKGPMFPF
Target:	Others	
Pathway:	Others	
Solubility:	H2O : ≥ 50 mg/mL (32.60 mM)	

BIOLOGICAL ACTIVITY:

[Pyr1]-Apelin-13 is a highly potent, selective endogenous apelin receptor (APJ) agonist. **In Vitro:** [Pyr1]-apelin-13 encapsulation in lipoPEG particles (lipoPEG-PA13) results in sustained and extended drug release under physiological conditions^[1]. **In Vivo:** [Pyr1]-apelin-13 nanocarriers in a mouse model of pressure-overload induced heart failure demonstrate a sustainable long-term effect of [Pyr1]-apelin-13 in preventing cardiac dysfunction^[1]. [Pyr1] apelin-13 (1, 5 µg) improves locomotor activity and reduces pain symptoms, cavity size and caspase-3 levels in rats. [Pyr1] apelin-13 (1, 5 µg) significantly increases thermal paw withdrawal latency. [Pyr1] apelin-13 in 5 µg dose also produces significant attenuation in paw withdrawal threshold compared to SCI animals from the second week post SCI^[2].

References:

- [1]. Serpooshan V, et al. [Pyr1]-Apelin-13 delivery via nano-liposomal encapsulation attenuates pressure overload-induced cardiac dysfunction. *Biomaterials*. 2015 Jan;37:289-98.
- [2]. Hajimashhadi Z, et al. Chronic administration of [Pyr1] apelin-13 attenuates neuropathic pain after compression spinal cord injury in rats. *Neuropeptides*. 2017 Feb;61:15-22.

CAIndexNames:

L-Phenylalanine, 5-oxo-L-prolyl-L-arginyl-L-prolyl-L-arginyl-L-leucyl-L-seryl-L-histidyl-L-lysylglycyl-L-prolyl-L-methionyl-L-prolyl-

SMILES:

[[Glp]-RPRLSHKGPMFPF]

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

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