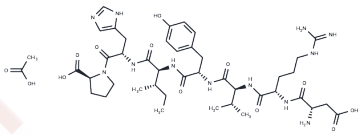
Data Sheet (Cat.No.T37495)

TargetMol

Angiotensin (1-7) acetate

Chemical Properties



CAS No. : 2855063-75-9

Formula: C43H66N12O13

Molecular Weight: 959.06

Storage: Keep away from direct sunlight,Keep away from moisture
Store at -20°C
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Angiotensin (1-7) acetate (Ang-(1-7) acetate) is an amino acid sequence present in angiotensin, which has antifibrotic and cardioprotective effects and inhibits the activity of purified canine angiotensin converting enzyme (ACE). Angiotensin (1-7) acetate inhibits the growth of tumor cells and reduces local inflammation and angiogenesis in several types of cancer, blocks angiotensin II-induced smooth muscle cell proliferation and hypertrophy, and can be used to study atherosclerosis and novel coronavirus infection.
Targets(IC50)	RAAS,Endogenous Metabolite,Angiotensin-converting Enzyme (ACE)
In vitro	Pretreatment with Angiotensin (1-7) acetate (2 μM) significantly inhibited the degradation of 125I-[Tyr0]-BK as well as the appearance of BK-(1-7) and BK-(1-5) metabolites in the coronary vascular ring; Angiotensin (1-7) acetate inhibited the angiotensin-converting enzyme activity of purified canine angiotensin converting enzyme with an IC50 of 0.65 μM.[2]
In vivo	**METHODS**: Angiotensin (1-7) acetate (0.01-0.06 mg/kg,daily) was used to treat DSS-induced colitis mice, and colonic expression/activity profiles of ACE2, Ang 1-7, MAS1-Receptor (MAS1-R), MAPK family and Akt were determined by western blotting and immunofluorescence. **RESULTS**: Enhanced colonic expression of ACE2, Ang 1-7, and MAS1-R was observed in mice after Angiotensin (1-7) acetate treatment and significantly ameliorated DSS-induced colitis. [3]

Solubility Information

Solubility	H2O: 50 mg/mL (52.13 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.0427 mL	5.2134 mL	10.4269 mL
5 mM	0.2085 mL	1.0427 mL	2.0854 mL
10 mM	0.1043 mL	0.5213 mL	1.0427 mL
50 mM	0.0209 mL	0.1043 mL	0.2085 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Gómez-Mendoza DP, et al. Angiotensin-(1-7) oral treatment after experimental myocardial infarction leads to downregulation of CXCR4. J Proteomics. 2019;208:103486.
Li P, et al. Angiotensin-(1-7) augments bradykinin-induced vasodilation by competing with ACE and releasing nitric oxide. Hypertension. 1997 Jan;29(1 Pt 2):394-400.
Khajah MA, et al. Anti-Inflammatory Action of Angiotensin 1-7 in Experimental Colitis. PLoS One. 2016 Mar 10;11 (3):e0150861.
Alzayadneh EM, et al. Angiotensin-(1-7) abolishes AGE-induced cellular hypertrophy and myofibroblast transformation via inhibition of ERK1/2. Cell Signal. 2014 Sep 19. pii: S0898-6568(14)00314-3.
Janatpour ZC, et al. Subcutaneous Administration of Angiotensin-(1-7) Improves Recovery after Traumatic Brain Injury in Mice. J Neurotrauma. 2019;36(22):3115-3131.