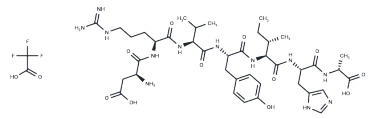
Data Sheet (Cat.No.T7616L)

TargetMol®
YOUR TARGET MOLECULES

A 779 TFA(159432-28-7 free base)

Chemical Properties



CAS No. :

Formula: C41H61F3N12O13

Molecular Weight: 987.01

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	A 779 TFA is a potent antagonist of angiotensin-(1-7) receptor.
Targets(IC50)	RAAS
In vitro	A-779 suppresses the proliferating cell nuclear antigen (PCNA) protein expression up-regulated by Ang II, but A-779 alone has no effect to induce proliferation and migration of VSMCs.?Pretreatment with Ang-(1-7) significantly retards Ang II-induced inflammatory responses of VSMCs associated with up-regulated MCP-1, VCAM-1 and IL-1β expressions, and this effect of Ang-(1-7) is blocked by A-779.?But A-779 alone has no effect to induce inflammatory response of VSMCs[1].
In vivo	Inhibition of Ang1-7 cascade by A-779 significantly eradicated captopril protective effects on bone metabolism, mineralization and micro-structure.?A-779 also restored OVX effects on RANKL expression and ACE-1/AngII/AT1R cascade and down-regulated OPG expression and ACE-2/Ang1-7/Mas pathway.?In line with the clinical observations of the bone-preservative properties following ACE-1 inhibition, local activation of ACE-2/Ang1-7/Mas signaling and suppressed osteoclastogenesis seem responsible for the osteo-preservative effect of captopril, which could offers a potential therapeutic value in treatment of disabling bone and skeletal muscular diseases[2].
Cell Research	HUVECs were cultured in vitro and divided into six groups:?the control group (normal medium), the ox-LDL group(treated with 75 mg/L ox-LDL), the ox-LDL+ Ang-(1-7) group (1 μmol/L Ang-(1-7) pretreated for 30 minutes, then intervened with 75 mg/L ox-LDL), the ox-LDL+ Ang-(1-7)+ A-779 group(1 μmol/L A-779 (Mas receptor) pretreated for 30 minutes, 1 μmol/L Ang-(1-7) pretreated for 30 minutes, then intervened with 75 mg/L ox-LDL), the ox-LDL+ A-779 group (1 μmol/L A-779 pretreated for 30 minutes, then intervened with 75 mg/L ox-LDL),?the ox-LDL+ HTA125 group (10 μg/L HTA125 (TLR4-blocking antibody) pretreated for 30 minutes, then intervened with 75 mg/L ox-LDL).?The corresponding index was detected after 24 hours after intervention.?Apoptosis of cells were detected by Annexin V-FITC/PI double staining flow cytometry and transferase-mediated deoxyuridine triphosphate-biotin nick end labeling (TUNEL).?The generation of reactive oxygen species (ROS), products in oxidative stress, were detected by DCFH-DA staining.?The mRNA and protein expression levels of NADPH oxidase 4(NOX4) and TLR4 were detected by real-time reverse transcription-polymerase chain reaction (RT-PCR) and Western blotting analysis respectively[1].

Solubility Information

Solubility	DMSO: 9.87 mg/mL (10 mM), (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.0132 mL	5.0658 mL	10.1316 mL
5 mM	0.2026 mL	1.0132 mL	2.0263 mL
10 mM	0.1013 mL	0.5066 mL	1.0132 mL
50 mM	0.0203 mL	0.1013 mL	0.2026 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.

Reference

Yan W F , Xue J J , Yang H Y , et al. [Effects and related mechanism of angiotensin-(1-7) on Toll-like receptor 4-mediated oxidative stress in human umbilical vein endothelial cells].[J]. Zhonghua Xin Xue Guan Bing Za Zhi, 2017,