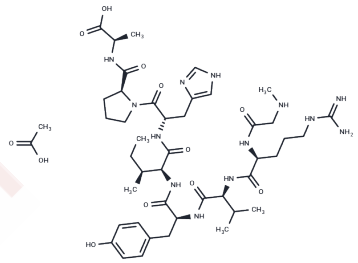
Data Sheet (Cat.No.TP2158L1)

TargetMol

TRV-120027 acetate (1234510-46-3 free base)

Chemical Properties



CAS No. : 1824712-70-0

Formula: C45H71N13O12

Molecular Weight: 986.14

Storage: Keep away from moisture
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	TRV-120027 acetate is a β-arrestin-1-biased agonist of the angiotensin II receptor type 1 (AT1 receptor) and engages -arrestins while blocking G-protein signaling.
Targets(IC50)	RAAS,Arrestin
In vitro	TRV120027 TFA (100 nM) induces an [Ca2+]i increase in HEK293 cells co-transfected with AT1R, β-arrestin-1, and TRPC3, which are significantly blocked by Pyr3 pre-incubation in HEK293 cells co-transfected with Flag-AT1R-Cherry, HA-β-arrestin-1, and TRPC3-GFP. TRV120027 TFA (100 nM) significantly increases the AT1R and TRPC3 association with the immunoprecipitated β-arrestin-1 in HEK293 cells co-transfected with Flag-AT1R-cherry, TRPC3-GFP, and HA-β-arrestin-1 [2].
In vivo	TRV120027 TFA (i.v.; 0.3 or 1.5 μg/kg per minute; infusion rate, 0.5 mL/min), when added to furosemide, decreases cardiac preload and afterload, systemic and renal vascular resistance, and left ventricular external work while increasing cardiac output and renal blood flow [1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.0141 mL	5.0703 mL	10.1405 mL
5 mM	0.2028 mL	1.0141 mL	2.0281 mL
10 mM	0.1014 mL	0.507 mL	1.0141 mL
50 mM	0.0203 mL	0.1014 mL	0.2028 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

Boerrigter G, et al. TRV120027, a novel β-arrestin biased ligand at the angiotensin II type I receptor, unloads the heart and maintains renal function when added to furosemide in experimental heart failure.Circ Heart Fail. 2012 Sep 1;5(5):627-34. Epub 2012 Aug 13.

Liu CH, et al. Arrestin-biased AT1R agonism induces acute catecholamine secretion through TRPC3 coupling.Nat Commun. 2017 Feb 9;8:14335.