

## Product Data Sheet

Cas No.:		Cat. No:	PL05935
Product Name:	TRV-120027 TFA		
Product synonym:	-		
Chemical name:	TRV-120027 TFA		
MF:	-	FW:	-
Purity:	≥99%	Batch No.:	-
Storage:			
λmax:	-	Formulation:	-
Solubility :	-		
SMILES :	-		
InChI Code:	-		
InChI Key:	-		
WARNING This product is not for human or veterinary use.			

## Product Description

TRV120027 TFA 是血管紧张素 II 受体 1 型 (AT1R) 的  $\beta$ -arrestin-1 激动剂。TRV120027 TFA 通过阳离子通道亚家族 C3 (TRPC3) 偶联诱导急性儿茶酚胺分泌, 促进质膜上 AT1R- $\beta$ -arrestin-1-TRPC3-PLC $\gamma$  形成大分子复合物。TRV120027 TFA 抑制血管紧张素 II 介导的血管收缩并增加心肌细胞的收缩力。TRV120027 TFA 有潜力用于急性失代偿性心力衰竭 (ADHF) 的研究。

生物活性	TRV120027 TFA, a $\beta$ -arrestin-1-biased agonist of the angiotensin II receptor type 1 (AT1R), engages $\beta$ -arrestins while blocking G-protein signaling. TRV120027 TFA induces acute catecholamine secretion through cation channel subfamily C3 (TRPC3) coupling, promotes the formation of a macromolecular complex composed of AT1R- $\beta$ -arrestin-1-TRPC3-PLC $\gamma$ at the plasma membrane. TRV120027 TFA inhibits angiotensin II-mediated vasoconstriction and increases cardiomyocyte contractility. TRV120027 TFA has the potential for the acute decompensated heart failure (ADHF) treatment.
IC50 & Target[1][2]	IC50: the angiotensin II receptor type 1 (AT1R)
体外研究(In Vitro)	TRV120027 TFA (100 nM) significantly increases the AT1R and TRPC3 association with the immunoprecipitated $\beta$ -arrestin-1 in HEK293 cells co-transfected with Flag-AT1R-cherry, HA- $\beta$ -arrestin-1 and TRPC3-GFP. TRV120027 TFA (100 nM) induces an [Ca] $^{2+}$ increase in HEK293 cells co-transfected with AT1R, $\beta$ -arrestin-1, and TRPC3, which are significantly blocked by Pyr3 pre-incubation in HEK293 cells co-transfected with Flag-AT1R-Cherry, HA- $\beta$ -arrestin-1, and TRPC3-GFP. has not independently confirmed the accuracy of these methods. They are for reference only.
体内研究(In Vivo)	TRV120027 TFA (intravenous injection; 0.3 or 1.5 $\mu$ g/kg per minute; infusion rate, 0.5 mL/min) when added to furosemide decreases cardiac preload and afterload, systemic and renal vascular resistances, and left ventricular external work while increasing cardiac output and renal blood flow. GFR and renal excretory function are maintained in canines with experimental HF. has not independently confirmed the accuracy of these methods. They are for reference only.
包装储存	Sealed storage, away from moisture and lightPowder -80°C 2 years; -20°C 1 year

溶解度数据	In Vitro: DMSO : 100 mg/mL (96.14 mM; Need ultrasonic)配制储备液
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