

产品名称: **Treprostinil diethanolamine**

CAS 号: 830354-48-8

产品货号: T85885

生物活性:

Description	Treprostinil (UT-15C) diethanolamine is a potent EP2, DP1 and IP agonist with Ki values of 3.6, 4.4, 32.1, 212, 826, 2505 and 4680 nM for EP2, DP1, IP, EP1, EP4, EP3 and FP, respectively. Treprostinil (UT-15C) diethanolamine increases upregulation of cAMP toward maintaining homeostasis within the vasculature. Treprostinil (UT-15C) diethanolamine can result in vasodilatation of human pulmonary arteries[1][2][3].						
IC50 & Target	DP1 4.4 nM (Ki)	EP1 212 nM (Ki)	EP4 826 nM (Ki)	EP3 2505 nM (Ki)	IP 32.1 nM (Ki)	FP 4680 nM (Ki)	EP2 3.6 nM (Ki)
In Vitro	Treprostinil diethanolamine (UT-15C; 0.001-10,000 nM; 60 min; HEK293 cells) has high potency in activating DP1 and EP2 receptors as well as the IP receptor with EC50 values of 0.6 nM, 6.2 nM and 1.9 nM, respectively, 36-fold less active at the EP3 receptor, 95-fold less active at the EP4 and 150-fold less active at the EP1 site than at the IP receptor[1]. Treprostinil diethanolamine (10 μM) increases cAMP accumulation in murine and human hematopoietic stem and progenitor cells (HSPCs) [2]. Treprostinil diethanolamine (10 μM; 2-6 h; PC3 cells) enhances the action of SDF-1 via CXCR4[2].						
In Vivo	Treprostinil diethanolamine (UT-15C; 0.15 mg/kg; i.h.; every 8 h; for 10 d; BALB/c mice) enhances the ability of HSPCs to repopulate the bone marrow and increases bone marrow reconstitution[2]. Treprostinil diethanolamine (0.15 mg/kg; i.h.; every 8 h; for 10 d; BALB/c mice) increases survival of lethally irradiated recipient mice[2]. Treprostinil diethanolamine (0.1 mg/kg; i.h.; for 24h; male lewis rats) inhibits the mRNA expression of TNF-α and IFN-γ and increases in IL-10 expression[3].						
	Animal Model:		BALB/c mice[2]				
	Dosage:		0.15 mg/kg				
	Administration:		Subcutaneous injection; every 8 hours; for 10 days				
	Result:		Increased survival of lethally irradiated recipient mice.				
	Animal Model:		Male lewis rats[3]				
	Dosage:		0.1 mg/kg				
	Administration:		Subcutaneous injection; for 24 hours				
	Result:		Decreased the mRNA expression of TNF-伪 and IFN-纬 and increased the expression of IL-10.				
Solvent&Solubility	细胞实验: DMSO 中的溶解度 : 125 mg/mL (252.19 mM; 超声助溶; 吸湿的 DMSO 对产品的溶解度有显著影响, 请使用新开封的 DMSO)						
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg	
		1 mM		2.0176 mL	10.0878 mL	20.1755 mL	
		5 mM		0.4035 mL	2.0176 mL	4.0351 mL	
		10 mM		0.2018 mL	1.0088 mL	2.0176 mL	
* 请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液; 一旦配成溶液, 请分装保存, 避免反复冻融造成的产品失效。							



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	储备液的保存方式和期限: -80°C, 6 months; -20°C, 1 month。-80°C 储存时, 请在 6 个月内使用, -20°C 储存时, 请在 1 个月内使用。
参考文献	[1]. Whittle BJ, et, al. Binding and activity of the prostacyclin receptor (IP) agonists, treprostinil and iloprost, at human prostanoid receptors: treprostinil is a potent DP1 and EP2 agonist. Biochem Pharmacol. 2012 Jul 1;84(1):68-75. [2]. Kazemi Z, et, al. Repurposing Treprostinil for Enhancing Hematopoietic Progenitor Cell Transplantation. Mol Pharmacol. 2016 Jun;89(6):630-44. [3]. Ghonem N, et, al. Treprostinil, a prostacyclin analog, ameliorates ischemia-reperfusion injury in rat orthotopic liver transplantation. Am J Transplant. 2011 Nov;11(11):2508-16.

完整储备液配制表:

* 请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液; 一旦配成溶液, 请分装保存, 避免反复冻融造成的产品失效。 储备液的保存方式和期限: -80°C, 6 months; -20°C, 1 month。-80°C 储存时, 请在 6 个月内使用, -20°C 储存时, 请在 1 个月内使用。

可选溶剂	质量 溶剂体积 浓度	1 mg	5 mg	10 mg	25 mg
DMSO	1 mM	2.0176 mL	10.0878 mL	20.1755 mL	50.4388 mL
	5 mM	0.4035 mL	2.0176 mL	4.0351 mL	10.0878 mL
	10 mM	0.2018 mL	1.0088 mL	2.0176 mL	5.0439 mL
	15 mM	0.1345 mL	0.6725 mL	1.3450 mL	3.3626 mL
	20 mM	0.1009 mL	0.5044 mL	1.0088 mL	2.5219 mL
	25 mM	0.0807 mL	0.4035 mL	0.8070 mL	2.0176 mL
	30 mM	0.0673 mL	0.3363 mL	0.6725 mL	1.6813 mL
	40 mM	0.0504 mL	0.2522 mL	0.5044 mL	1.2610 mL
	50 mM	0.0404 mL	0.2018 mL	0.4035 mL	1.0088 mL
	60 mM	0.0336 mL	0.1681 mL	0.3363 mL	0.8406 mL
	80 mM	0.0252 mL	0.1261 mL	0.2522 mL	0.6305 mL
	100 mM	0.0202 mL	0.1009 mL	0.2018 mL	0.5044 mL