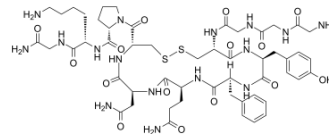


Terlipressin

Cat. No.:	HY-12554
CAS No.:	14636-12-5
Molecular Formula:	C ₅₂ H ₇₄ N ₁₆ O ₁₅ S ₂
Molecular Weight:	1227.37
Sequence:	Gly-Gly-Gly-Cys-Tyr-Phe-Gln-Asn-Cys-Pro-Lys-Gly-NH ₂ (Disulfide bridge: Cys4-Cys9)
Sequence Shortening:	GGGCFYQNCPKG-NH ₂ (Disulfide bridge: Cys4-Cys9)
Target:	Vasopressin Receptor
Pathway:	GPCR/G Protein
Storage:	Please store the product under the recommended conditions in the COA.



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (81.48 mM; Need ultrasonic)						
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg	
				1 mM	0.8148 mL	4.0738 mL	8.1475 mL
				5 mM	0.1630 mL	0.8148 mL	1.6295 mL
				10 mM	0.0815 mL	0.4074 mL	0.8148 mL
Please refer to the solubility information to select the appropriate solvent.							
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (2.04 mM); Clear solution						
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (2.04 mM); Clear solution						
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (2.04 mM); Clear solution						

BIOLOGICAL ACTIVITY

Description	Terlipressin is a vasopressin analogue with potent vasoactive properties. Terlipressin is a highly selective vasopressin V1 receptor agonist that reduces the splanchnic blood flow and portal pressure and controls acute variceal bleeding. Terlipressin exerts anti-inflammatory and anti-oxidative effects. Terlipressin has the potential for hepatorenal syndrome and norepinephrine-resistant septic shock research ^{[1][2][3][4][5]} .
IC ₅₀ & Target	Vasopressin V1 receptor ^[1]

In Vitro	Terlipressin (25 nM; 24-72 hours; IEC-6 cells) treatment significantly improves cell viability, proliferation and apoptosis in IEC-6 cells ^[1] .	
	Terlipressin inhibits the secretion of TNF- α and 15-F2t-isoprostane from IEC-6 cells following oxygen and glucose deprivation/re-oxygenation (OGD/R). Terlipressin administration following OGD attenuates OGD/R-induced cell damage via the PI3K signaling pathway ^[1] .	
	Cell Proliferation Assay^[1]	
	Cell Line:	IEC-6 cells induced by oxygen and glucose deprivation/re-oxygenation (OGD/R)
	Concentration:	25 nM
Incubation Time:	24 hours, 48 hours, 72 hours	
Result:	Significantly increased the proliferation of IEC-6 cells.	
In Vivo	Using a mouse nonlethal hepatic ischemia-reperfusion (IR) model, Terlipressin administration significantly ameliorates IR-induced liver apoptosis, necrosis and inflammation ^[3] .	

REFERENCES

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- [2]. Yeun Tarl Fresner Ng Jao, et al. Refractory Torsade De Pointes Induced by Terlipressin (Glypressin). *Int J Cardiol*. 2016 Nov 1;222:135-140.
- [3]. Xiqiang Liu, et al. Signaling Through Hepatocyte Vasopressin Receptor 1 Protects Mouse Liver From Ischemia-Reperfusion Injury. *Oncotarget*. 2016 Oct 25;7(43):69276-69290.
- [4]. Xinmiao Zhou, et al. Terlipressin for the Treatment of Acute Variceal Bleeding: A Systematic Review and Meta-Analysis of Randomized Controlled Trials. *Medicine (Baltimore)*. 2018 Nov;97(48):e13437.
- [5]. Alastair O'Brien, et al. Terlipressin for Norepinephrine-Resistant Septic Shock. *Lancet*. 2002 Apr 6;359(9313):1209-10.

Caution: Product has not been fully validated for medical applications. For research use only.

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