Umirolimus

Cat. No.: HY-122402

CAS No.: 851536-75-9

Molecular Formula: $C_{55}H_{87}NO_{14}$

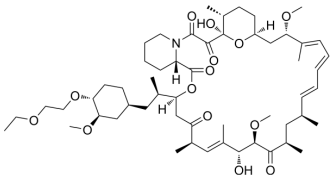
Molecular Weight: 986.28

Target: Bacterial

Pathway: Anti-infection

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (101.39 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.0139 mL	5.0696 mL	10.1391 mL
	5 mM	0.2028 mL	1.0139 mL	2.0278 mL
	10 mM	0.1014 mL	0.5070 mL	1.0139 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 5 mg/mL (5.07 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (2.53 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Umirolimus, a macrocyclic triene lactone Rapamycin derivative, is powerful immunosuppressant and anti-inflammatory agent. Umirolimus has highly lipophilicity and can be used agent-eluting stent (DES) applications[1].

In Vitro

Umirolimus is a macrocyclic triene lactone, developed with pharmacological properties specifically tailored for localized drug delivery. Umirolimus can be used drug-eluting stent (DES) applications. Owing to its enhanced lipophilicity,it is strongly attracted to binding sites within the vessel wall and small, tortuous vessels, and contributing to cellular absorption and sustained distribution in the vessel wall surrounding the stent[1].

Umirolimus prevents progression of the cell cycle in G1 phase by inhibiting IL-2/mTOR-mediated P70-KD S6 protein kinase activation. Umirolimus inhibits T-cell growth, as well as smooth muscle cell growth[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo	The elimination half-life of Umirolimus is approximately 25 h in whole blood[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Eberhard Grube, et al. BioMatrix Biolimus A9-eluting coronary stent: a next-generation drug-eluting stent for coronary artery disease. Expert Rev Med Devices. 2006 Nov;3(6):731-41.

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