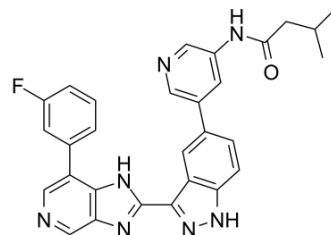


Adavivint

Cat. No.:	HY-109049		
CAS No.:	1467093-03-3		
Molecular Formula:	C ₂₉ H ₂₄ FN ₇ O		
Molecular Weight:	505.55		
Target:	Wnt		
Pathway:	Stem Cell/Wnt		
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 : 25 mg/mL (49.45 mM; Need ultrasonic and warming)
H₂O : < 0.1 mg/mL (insoluble)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	1.9780 mL	9.8902 mL	19.7804 mL
5 mM	0.3956 mL	1.9780 mL	3.9561 mL
10 mM	0.1978 mL	0.9890 mL	1.9780 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (4.95 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (4.95 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (4.95 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Adavivint (SM04690; Lorecivivint) is a potent and selective inhibitor of canonical Wnt signaling, with an EC₅₀ of 19.5 nM via a high-throughput TCF/LEF-reporter assay in SW480 colon cancer cells^[1].

IC₅₀ & Target

EC₅₀: 19.5 nM (Wnt, SW480 cell)^[1]

In Vitro

Adavivint (SM04690) is a potent and selective inhibitor of Wnt signaling, with an EC₅₀ of 19.5 nM via a high-throughput

TCF/LEF-reporter assay in SW480 colon cancer cells, and shows no effect on SV40 luciferase reporter. Adavivint enhances aggregation of human mesenchymal stem cells (hMSCs) with an EC₅₀ of 10 nM. Adavivint (30 nM) protects chondrocytes from catabolic breakdown in vitro^[1].

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

In Vivo

Adavivint (0.3 µg) enhances cartilage repair and protection in the rat acute cruciate ligament tear and partial medial meniscectomy osteoarthritis (ACLT + pMMx OA) model^[1].

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

REFERENCES

[1]. Deshmukh V, et al. A small-molecule inhibitor of the Wnt pathway (SM04690) as a potential disease modifying agent for the treatment of osteoarthritis of the knee. Osteoarthritis Cartilage. 2018 Jan;26(1):18-27.

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

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