# Adavivint

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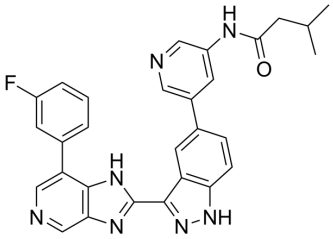
| **Cat. No.:** | HY-109049 |
| **CAS No.:** | 1467093-03-3 |
| **Molecular Formula:** | $C_{29}H_{24}FN_7O$ |
| **Molecular Weight:** | 505.55 |
| **Target:** | Wnt |
| **Pathway:** | Stem Cell/Wnt |
| **Storage:** | Powder -20°C 3 years<br>4°C 2 years<br>In solvent -80°C 6 months<br>-20°C 1 month |



## SOLVENT & SOLUBILITY

**In Vitro**

DMSO : 25 mg/mL (49.45 mM; Need ultrasonic and warming)

$H_2O$ : < 0.1 mg/mL (insoluble)

**Preparing Stock Solutions**

| Solvent / Mass / Concentration | 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**

1. 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
2. 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
3. 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 $EC_{50}$ of 19.5 nM via a high-throughput TCF/LEF-reporter assay in SW480 colon cancer cells[1].

**$IC_{50}$ & Target**

EC50: 19.5 nM (Wnt, SW480 cell)[1]

**In Vitro**

Adavivint (SM04690) is a potent and selective inhibitor of Wnt signaling, with an $EC_{50}$ of 19.5 nM via a high-throughput

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| | 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 $EC_{50}$ of 10 nM. Adavivint (30 nM) protects chondrocytes from catabolic breakdown in vitro[1].<br>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].<br>MCE has not independently confirmed the accuracy of these methods. They are for reference only. |

## CUSTOMER VALIDATION

- J Med Chem. 2023 Mar 6.
- Cell Oncol. 2022 Oct 21.
- Mol Carcinog. 2022 Oct 12.
- Bone. 2022 Feb 23;116372.
- Osteoarthr Cartil Open. 2023 May 12, 100369.

See more customer validations on www.MedChemExpress.com

## 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.



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