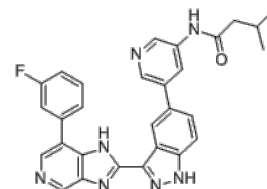


Product Name : SM04690
Cat. No. : PC-60504
CAS No. : 1467093-03-3
Molecular Formula : C₂₉H₂₄FN₇O
Molecular Weight : 505.557
Target : Cdc2-like Kinase (CLK)
Solubility : 10 mM in DMSO



Biological Activity

Adavivint (Lorecivivint, SM04690) is a novel small molecule **Wnt pathway** inhibitor with EC₅₀ of 3 nM in vitro, potently inhibits **CLK2** and **DYRK1A** with IC₅₀ of 5.8 and 26.9 nM, respectively.

SM04690 demonstrates selectivity against a panel of 318 kinases, showses ≥90% inhibition of 7 kinases (out of 318) at 0.5 uM.

SM04690 inhibits CLK- and DYRK1A-mediated signaling in hMSCs and chondrocytes, 2–300-fold more potent than CC-671, TG003, ML167, Leucettine L41, ML315.

SM04690 dose dependently inhibited the CLK-mediated phosphorylation of SRSF4, SRSF5, and SRSF6 in hMSCs and human chondrocytes.

SM04690 induces hMSC differentiation into mature, functional chondrocytes and decreases cartilage catabolic marker levels.

SM04690 significantly improves Osteoarthritis Research Society International (OARSI) histology scores and biomarkers in a rodent OA model.

References

1. Yazici Y, et al. *Osteoarthritis Cartilage*. 2017 Jul 13. pii: S1063-4584(17)31085-3.
2. Deshmukh V, et al. *Osteoarthritis Cartilage*. 2017 Sep 6. pii: S1063-4584(17)31167-6.
3. V Deshmukh, et al. *Osteoarthritis Cartilage*. 2019 Sep;27(9):1347-1360.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

E-mail: tech@probechem.com