



Data Sheet

Research Use Only

Compound Name

Reversine

Catalog Number

SM85

Activity

Reversine is a novel class of ATP-competitive Aurora kinase inhibitors. Reversine inhibits the phosphorylation of histone H3, a direct downstream target of Aurora kinases. It acts as a selective A3 adenosine receptor antagonist. Reversine functions as a dual inhibitor of MEK1 and nonmuscle myosin II heavy chain. It also acts as an ATP-competitive, reversible and selective inhibitor of ARK-1, ARK-2, and ARK-3.

Purity

>98%

Formula

 $C_{21}H_{27}N_7O$

Solubility

DMSO

Alternative Names

2-(4-Morpholinoanilino)-6-cyclohexylaminopurine, N'-cyclohexyl-N-(4-morpholinophenyl)-7H-purine-2,6-diamine

Effect

Reversine is the first organic molecule that has been demonstrated to reverse the cellular differentiation process. It is shown to induce mouse C2C12 myoblast cells to become multipotent mesenchymal progenitor cells, that could then be induced by osteogenic or adipogenic medium to re-differentiate into bone or adipose precursors, respectively. Moreover, reversine has been shown to promote cell reprogramming and induce dedifferentiation of multiple terminally differentiated mesodermal origin cells, and then differentiate into other cell types within mesodermal lineages as well as neuroectodermal.

CAS

656820-32-5

Molecular Weight

393.49

Stability

Stable at -20°C. Keep away from direct sunlight.

References

1. Chen, S., et al. 2004. J Am Chem Soc. 126(2): 410-411. PMID: 14719906
2. Hu, X., et al. 2012. Zhongguo Xiu Fu Chong Jian Wai Ke Za Zhi. 26(9): 1126-1129. PMID: 23057363
3. Lv, X., et al. 2012. J Cell Biochem. 113(12): 3629-3642. PMID: 22821411