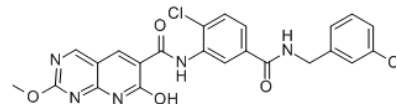


Product Name : Mirk-IN-1
Cat. No. : PC-43249
CAS No. : 1386979-55-0
Molecular Formula : C₂₃H₁₇Cl₂N₅O₄
Molecular Weight : 498.3182
Target : DYRK
Solubility : 10 mM in DMSO



Biological Activity

Mirk-IN-1 is a potent, specific inhibitor of **Dyrk1B** (Mirk kinase) and **Dyrk1A** with IC₅₀ of 68 nM and 22 nM respectively, shows SW620 cell IC₅₀ of 1.9 μM.

Mirk-IN-1 weakly inhibits DYRK1A, ABL, FLT3, and MARK1 with 88%, 64%, 56% and 73% at 10 μM, shows no activity against the other kinases in the Caliper assay panel.

Mirk-IN-1 blocks tumor cells from undergoing reversible arrest in a quiescent G(0) state and enables some cells to exit quiescence, elevates ROS levels and DNA damage detected by increased phosphorylation of the histone protein H2AX and by S-phase checkpoints.

Mirk-IN-1 sensitizes cells to gemcitabine and cisplatin.

References

Ewton DZ, et al. *Mol Cancer Ther.* 2011 Nov;10(11):2104-14.

Anderson K, et al. *Bioorg Med Chem Lett.* 2013 Dec 15;23(24):6610-5.

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

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