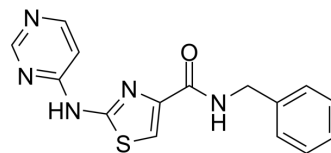


Thiazovivin (GMP)

Cat. No.:	HY-13257G
CAS No.:	1226056-71-8
Molecular Formula:	C ₁₅ H ₁₃ N ₅ OS
Molecular Weight:	311.36
Target:	ROCK
Pathway:	Cell Cycle/DNA Damage; Cytoskeleton; Stem Cell/Wnt; TGF-beta/Smad
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Thiazovivin (GMP) is Thiazovivin (HY-13257) produced by using GMP guidelines. GMP small molecules work appropriately as an auxiliary reagent for cell therapy manufacture. Thiazovivin is a potent ROCK inhibitor ^[1] .
In Vitro	<p>Thiazovivin (GMP) (0.5 μM, at 1 day) promotes rapid and efficient reprogramming of mouse tail tip and embryonic fibroblasts into iPSCs^[1].</p> <p>Thiazovivin (GMP) enhances the efficiency in reprogramming endometrial adult stromal cells to iPSCs^[2].</p> <p>Thiazovivin (GMP) (2 μM) induces iPSCs and induced neural stem cells (iNSCs) from human urine cells (UCs)^[3].</p> <p>Thiazovivin (GMP) (2 μM, for the first 24 h) improves growth rate of hiPSCs^[4].</p> <p>Thiazovivin (GMP) (0.5 μM) together with SB431542 and PD0325901 promotes iPSC reprogramming by regulating cell-cell interactions^[5].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

CUSTOMER VALIDATION

- Cell Rep. 2017 Aug 29;20(9):2227-2237.
- Sci Rep. 2019 Mar 5;9(1):3462.
- bioRxiv. 2023 Dec 28.
- Patent. US20180263995A1.

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- [1]. Park HS, et al. Generation of induced pluripotent stem cells without genetic defects by small molecules. *Biomaterials*. 2015 Jan;39:47-58.
- [2]. Mohseni R, et al. Reprogramming of endometrial adult stromal cells in the presence of a ROCK inhibitor, thiazovivin, could obtain more efficient iPSCs. *Cell Biol Int*. 2015 May;39(5):515-8.
- [3]. Cheng L, et al. Generation of Urine Cell-Derived Non-integrative Human iPSCs and iNSCs: A Step-by-Step Optimized Protocol. *Front Mol Neurosci*. 2017 Oct 30;10:348.

[4]. Kuo HH, et al. Negligible-Cost and Weekend-Free Chemically Defined Human iPSC Culture. Stem Cell Reports. 2020 Feb 11;14(2):256-270.

[5]. Lin T, et al. A chemical platform for improved induction of human iPSCs. Nat Methods. 2009 Nov;6(11):805-8.

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

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