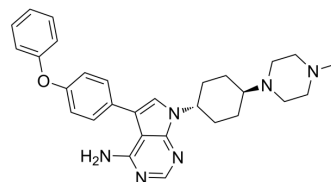


A 419259 (GMP)

Cat. No.:	HY-15764G
CAS No.:	364042-47-7
Molecular Formula:	C ₂₉ H ₃₄ N ₆ O
Molecular Weight:	482.62
Target:	Src; Apoptosis
Pathway:	Protein Tyrosine Kinase/RTK; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	A 419259 GMP is the GMP grade A 419259 (HY-15764), inducing cell apoptosis. GMP-grade small molecules can be used as auxiliary reagents in cell therapy. A 419259 (RK-20449) is a broad-spectrum pyrrole-pyrimidine inhibitor targeting Src, Lck, and Lyn with IC ₅₀ s of 9 nM, <3 nM, and <3 nM, respectively ^{[1][2]} .
IC₅₀ & Target	IC ₅₀ : 9 nM (Src), <3 nM (Lck), <3 nM (Lyn), 3 μM (Abl) ^[1]
In Vitro	<p>A419259 is a second-generation pyrrolopyrimidine that blocks proliferation and induces apoptosis in CML cell lines. It induces apoptosis in K-562 cells and also inhibits Meg-01 proliferation (IC₅₀=0.1 μM)^[1].</p> <p>In the absence of IL-3, A-419259 strongly inhibits DAGM/Bcr-Abl cell proliferation (IC₅₀=0.1-0.3 μM)^[1].</p> <p>A-419259 also inhibits overall SFK activity in CML cell lines and blocks Src kinase activation (IC₅₀=0.1-0.3 μM)^[1].</p> <p>A 419259 GMP (1 μM; 16 h) inhibits endogenous SFK (c-Src and Lck) activity, thereby inhibiting Src-driven differentiation of mES cells toward primitive ectoderm-like cells^[2].</p> <p>A 419259 GMP (0.3, 1 μM; 5 days) has no effect on undifferentiated colony morphology of hES cells grown in mTeSR medium [2].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

CUSTOMER VALIDATION

- Blood. 2016 Jun 23;127(25):3237-52.
- Patent. US20170333436A1.

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REFERENCES

[1]. Wilson MB, et al. Selective pyrrolo-pyrimidine inhibitors reveal a necessary role for Src family kinases in Bcr-Abl signal transduction and oncogenesis. *Oncogene*. 2002 Nov 21;21(53):8075-88.

[2]. Zhang X, et al. Src-family tyrosine kinase activities are essential for differentiation of human embryonic stem cells. *Stem Cell Res*. 2014 Nov;13(3 Pt A):379-89.

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

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