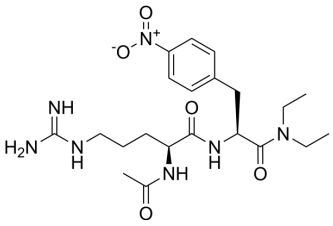
ATIC-IN-1

Cat. No.:	HY-150252
CAS No.:	1402453-15-9
Molecular Formula:	$C_{21}H_{33}N_7O_5$
Molecular Weight:	463.53
Target:	Others
Pathway:	Others
Storage:	-20°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



BIOLOGICAL ACTIVITY

Description	ATIC-IN-1(compound 14) is an inhibitor targeting to Aminoimidazole carboxamide ribonucleotide transformylase/inosine monophosphate cyclohydrolase (ATIC) dimerization with a K_i value of 685 nM. ATIC dimerization is crucial for its aminoimidazole carboxamide ribonucleotide (AICAR) transformylase activity. ATIC-IN-1 exhibits anti-tumor activity via reduction in cell numbers and cell division rates[1].
IC_{50} & Target	Aminoimidazole carboxamide ribonucleotide transformylase/inosine monophosphate cyclohydrolase (ATIC)[1]
In Vitro	ATIC-IN-1 (10 μM, 50 μM) is a specific inhibitor, and shows nonspecific aggregate mechanism in the present of 1 mg/mL and 10 mg/mL BSA[1]. ATIC-IN-1 (100-500 μM; 48 h) inhibits the proliferation of MCF-7 cells[1]. ATIC-IN-1 (250 μM; 24-72 h) results the reduction of division rather than leads to cell death increase[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[1]

Cell Line:	MCF-7 cells
Concentration:	100 μM, 250 μM, 500 μM
Incubation Time:	0 h, 24 h, 48 h, and 72 h
Result:	Reduced the division rate to inhibit MCF-7 proliferation at 250 μM.

REFERENCES

[1]. Spurr IB, et al. Targeting tumour proliferation with a small-molecule inhibitor of AICAR transformylase homodimerization. Chembiochem. 2012 Jul 23;13(11):1628-34.

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

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