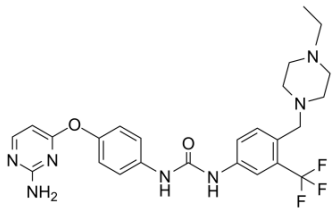
ATH686

Cat. No.:	HY-15003
CAS No.:	853299-52-2
Molecular Formula:	$C_{25}H_{28}F_3N_7O_2$
Molecular Weight:	515.53
Target:	FLT3; Apoptosis
Pathway:	Protein Tyrosine Kinase/RTK; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

ATH686 is a potent, selective and ATP-competitive FLT3 inhibitor. ATH686 target mutant FLT3 protein kinase activity and inhibit the proliferation of cells harboring FLT3 mutants via induction of apoptosis and cell cycle inhibition. ATH686 has antileukemic effects[1].

In Vitro

ATH686 (1-100 μM; 3 days) potently inhibits cell proliferation (IC_{50} around 0.001 μM) via induction of apoptosis in FLT3-ITD-Ba/F3 cells and D835Y-Ba/F3 cells[1].

ATH686 (10 nM; for 15 minutes) inhibits autophosphorylation of mutant FLT3 in FLT3-ITD-Ba/F3 cells[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Proliferation Assay[1]

Cell Line:	FLT3-ITD-Ba/F3 cells and D835Y-Ba/F3 cells
Concentration:	1, 5, 10, 50, 100 μM
Incubation Time:	3 days
Result:	Potently inhibited cell proliferation (IC_{50} around 0.001 μM) via induction of apoptosis.

Western Blot Analysis[1]

Cell Line:	FLT3-ITD-Ba/F3 cells
Concentration:	10 nM
Incubation Time:	For 15 minutes
Result:	Inhibited autophosphorylation of mutant FLT3, with no apparent reduction in levels of the FLT3 protein.

REFERENCES

[1]. Ellen Weisberg, et al. Antileukemic Effects of Novel First- and Second-Generation FLT3 Inhibitors: Structure-Affinity Comparison. Genes Cancer. 2010 Oct;1(10):1021-32.

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

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