Multi-kinase-IN-1

Cat. No.: HY-146014

CAS No.: 2470807-67-9

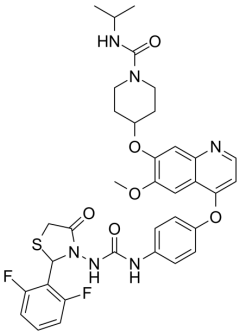
Molecular Formula: $C_{35}H_{36}F_2N_6O_6S$

Molecular Weight: 706.76

Target: Apoptosis; c-Met/HGFR; PDGFR; Src; TAM Receptor

Pathway: Apoptosis; Protein Tyrosine Kinase/RTK

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Multi-kinase-IN-1 (Compound 11k) is a potent kinase inhibitor with antitumor activity. Multi-kinase-IN-1 induces cell apoptosis, and can be studied for colorectal cancer[1].

IC_{50} & Target

Ron	c-Met	PDGFRα	c-Src
0.122 μM (IC_{50})	0.382 μM (IC_{50})	0.384 μM (IC_{50})	0.421 μM (IC_{50})

AXL
0.632 μM (IC_{50})

In Vitro

Multi-kinase-IN-1 (Compound 11k) (0-5 μg/mL, 0-72 h) induces antiproliferation and cytotoxicity in a dose- and time-dependent manner in HT-29 cells, and is much less toxic to normal colorectal mucosa epithelial cells[1].
Multi-kinase-IN-1 (0-3 μg/mL, 0-72 h) induces cell apoptosis in a time- and dose-dependent manner[1].
Multi-kinase-IN-1 (0-3 μg/mL, 48 h) slightly induces cell cycle arrest in G2/M phase[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Proliferation Assay[1]

Cell Line:	HT-29 (human colon cancer cell) and FHC (normal colorectal mucosa epithelial cells)
Concentration:	0.56, 1.67, and 5 μg/mL for HT-29, 10 μg/mL for FHC
Incubation Time:	0-72 h
Result:	Led to significant cytotoxicity in a dose- and time-dependent manner in HT-29 cells. Showed low toxicity in FHC cells.

Apoptosis Analysis[1]

Cell Line:	HT-29
Concentration:	0.3, 1, and 3 μg/mL
Incubation Time:	0-72 h
Result:	Induced cell apoptosis in a time- and dose-dependent manner.

Cell Cycle Analysis[1]

Cell Line:	HT-29
Concentration:	0.3, 1, and 3 μg/mL
Incubation Time:	48 h
Result:	Slightly induced cell cycle arrest with a G2/M percentage of 4.4% at 3.0 mg/mL compared to 0.1% DMSO (2.4%).

REFERENCES

[1]. Yuting Zhou, et al. Identification of novel quinoline analogues bearing thiazolidinones as potent kinase inhibitors for the treatment of colorectal cancer. Eur J Med Chem. 2020 Oct 15;204:112643.

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