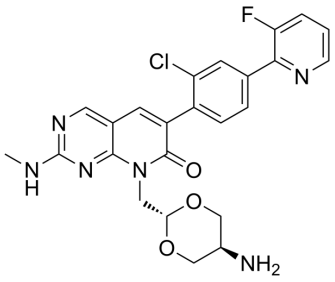
MRIA9

Cat. No.:	HY-139253
Molecular Formula:	$C_{24}H_{22}ClFN_6O_3$
Molecular Weight:	496.92
Target:	Salt-inducible Kinase (SIK); PAK; Apoptosis
Pathway:	Immunology/Inflammation; Cell Cycle/DNA Damage; Cytoskeleton; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

MRIA9 is an ATP-competitive, pan Salt-Inducible kinase (SIK) and PAK2/3 inhibitor, with IC_{50} values of 516 nM, 180 nM and 127 nM for SIK1, SIK2 and SIK3, respectively[1].

In Vitro

MRIA9 (5 μM) MRIA9 sensitizes SKOV3 cells to paclitaxel treatment through inducing pronounced apoptosis[1].
MRIA9 (5 μM) with paclitaxel (2 nM) significantly enhances cell death in HeLa cells[1].
MRIA9 strongly impedes centrosome function, causes mitotic spindle mispositioning in ovarian cancer cell lines, prevents the centrosome disjunction during the late G2 phase, and sensitized ovarian cancer cells and patient derived 3D-spheroids to paclitaxel treatment[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[1]

Cell Line:	SKOV3 cells.
Concentration:	0.5-5 μM (1 nM paclitaxel).
Incubation Time:	9 days.
Result:	Inhibited cell growth.

In Vivo

MRIA9 shows high oral bioavailability (F = 75-80%)[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Roberta Tesch, et al. Structure-Based Design of Selective Salt-Inducible Kinase Inhibitors. J Med Chem. 2021 Jun 24;64(12):8142-8160.

[2]. Monika Raab, et al. The Small-Molecule Inhibitor MRIA9 Reveals Novel Insights into the Cell Cycle Roles of SIK2 in Ovarian Cancer Cells. Cancers 2021, 13(15), 3658.

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

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