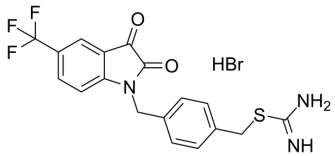
KS106

Cat. No.:	HY-146683
CAS No.:	2408477-50-7
Molecular Formula:	$C_{18}H_{15}BrF_3N_3O_2S$
Molecular Weight:	474.29
Target:	Aldehyde Dehydrogenase (ALDH); Apoptosis
Pathway:	Metabolic Enzyme/Protease; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	KS106 is a potent ALDH inhibitor with IC_{50}s of 334, 2137, 360 nM for ALDH1A1, ALDH2, and ALDH3A1, respectively. KS106 shows antiproliferative and anticancer effects with low low toxic.KS106 significantly increases ROS activity, lipid peroxidation and toxic aldehyde accumulation. KS106 induces apoptosis and cell cycle arrest at the G2/M phase[1].
IC_{50} & Target	IC_{50}: 334 nM (ALDH1A1); 2137 nM (ALDH2); 360 nM (ALDH3A1)[1]

In Vitro

KS106 (compound 3h) (0-100 μM; 72 h) shows anti-proliferative activity with IC_{50}s of 5.7, 5.7, 5.7, 4.9, 1.5, 2.6, 1.6, 1.7, 2.2, 20.7 μM for UACC 903, 1205 Lu, HCT116, HT29, NCIH929, U266, RPMI8226, MM.1R, MM.1S, FF2441 cells, respectively[1].
KS106 (5 μM, 24 h) induces apoptosis and cell cycle arrest at the G2/M phase[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Apoptosis Analysis[1]

Cell Line:	HCT116, HT29 cells
Concentration:	5 μM
Incubation Time:	24 h
Result:	Induced cell apoptosis.

Cell Cycle Analysis[1]

Cell Line:	HCT116 cells
Concentration:	5 μM
Incubation Time:	24 h
Result:	Induced cell cycle arrest at G2/M phase.

REFERENCES

[1]. Dinavahi SS, et al. Design, synthesis characterization and biological evaluation of novel multi-isoform ALDH inhibitors as potential anticancer agents. Eur J Med Chem.

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