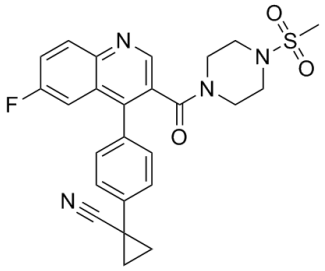
NCT-506

Cat. No.:	HY-112278
CAS No.:	2231098-99-8
Molecular Formula:	$C_{25}H_{23}FN_4O_3S$
Molecular Weight:	478.54
Target:	Aldehyde Dehydrogenase (ALDH)
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the COA.



BIOLOGICAL ACTIVITY

Description	NCT-506 is an orally bioavailable aldehyde dehydrogenase 1A1 (**ALDH1A1**) inhibitors with an **IC_{50}** of 7 nM[1].
In Vitro	NCT-506 inhibits ALDH1A1, hALDH1A3, hALDH2 with IC_{50}s of 0.007±0.001, 16.4±3.99, and 21.5 μM, respectively[1]. NCT-506 (100, 10, 1, 0.1 μM, 6 days) decreases significantly cell viability with an EC_{50} of 45.6 μM in OV-90 cells. NCT-506 inhibits MIA PaCa-2, OV-90, and HT-29 cells with IC_{50}s of 0.077±0.040, 0.161±0.038, and 0.048±0.022 μM in aldefluor cell-based assays, respectively[1]. NCT-506 is treated in combined with Paclitaxel, IC_{50}s of 1202, 924, 870, 411, 102, and 31.8 nM with concentrations of NCT-506 at 0 (DMSO), 1, 3, 10, 20, 30 μM in SKOV-3-TR cells, respectively[1]. **Cell Viability Assay[1]**

Cell Line:	OV-90 and SKOV-3-TR cells
Concentration:	100, 10, 1, 0.1 μM
Incubation Time:	6 days for OV-90 cells; 4 days for SKOV-3-TR cells
Result:	Decreased significantly cell viability with an EC_{50} of 45.6 μM in OV-90 cells. Decreased cell viability in combined treatments (Paclitaxel concentration of 100 nM) with an EC_{50} of 11.2 μM in SKOV-3-TR cells.

REFERENCES

[1]. Yang SM, et al. Discovery of Orally Bioavailable, Quinoline-Based Aldehyde Dehydrogenase 1A1 (ALDH1A1) Inhibitors with Potent Cellular Activity. J Med Chem. 2018 Jun 14;61(11):4883-4903.

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