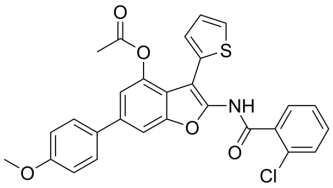
P-gp inhibitor 5

Cat. No.:	HY-150565
CAS No.:	2451298-06-7
Molecular Formula:	$C_{28}H_{20}ClNO_5S$
Molecular Weight:	517.98
Target:	P-glycoprotein
Pathway:	Membrane Transporter/Ion Channel
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	P-gp inhibitor 5 is a potent P-glycoprotein (P-gp) inhibitor. P-gp inhibitor 5 has antiproliferative activity against certain cancer cell lines. P-gp inhibitor 5 is effective in reversing the multidrug resistance (MDR) phenotype in ABCB1/Flp-In™-293 and KBvin cells by restoring their sensitivity to Vincristine (HY-N0488A) and Paclitaxel (HY-B0015)[1].
IC_{50} & Target	P-gp[1]
In Vitro	P-gp inhibitor 5 (compound 10) has cytotoxic against ABCB1/Flp-In™-293 and KBvin cells with IC_{50}s of 29.7 and 12.6 μM, respectively[1]. P-gp inhibitor 5 (2.5 and 5 μM) lows the IC_{50}s of KBvin cells for Vincristine to 7.59~36.82 nM, for Paclitaxel to 21.0~79.5 nM, for Doxorubicin to 85.7~111 nM; lows the IC_{50}s of HeLaS3 cells for Vincristine to 2.24~3.91 nM, for Paclitaxel to 8.81~9.58 nM, for Doxorubicin to 102~1260 nM[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Hung CC, et al. Synthesis and biological evaluation of thiophenylbenzofuran derivatives as potential P-glycoprotein inhibitors. Eur J Med Chem. 2020 Sep 1;201:112422.

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