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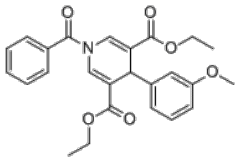
Data Sheet

Global Supplier of Chemical Probes, Inhibitors & Agonists.

Product Name	:	MC3138
Cat. No.	:	PC-49081
CAS No.	:	1844889-12-8
Molecular Formula	:	$C_{25}H_{25}NO_6$
Molecular Weight	:	435.48
Target	:	Sirtuin
Solubility	:	10 mM in DMSO



Biological Activity

MC3138 is a potent and selective small-molecule **SIRT5** activator, inhibits proliferation in SIRT5-low PDAC cell lines and organoids.
MC3138 reduces PDAC cell viability with IC50 of 25.4-236.9 uM.
MC3138 increased SIRT5 deacetylase activity 1.5-fold at 10 μM, 3-fold at 50 μM, and 4-fold at 200 μM.
MC3138 reduces PDAC cell viability with IC50 of 25.4-236.9 uM.
MC3138 mimicked the deacetylation effect mediated by SIRT5 overexpression, decreased lysine acetylation of the GOT1 protein and inhibited its enzymatic activity.
MC3138 decreased the metabolite levels in glutamine, glutathione, and pyrimidine metabolism pathways in SIRT5-low PDAC cell lines.
MC3138 combined with gemcitabine was synergistic at different concentrations in human PDAC organoids with low-SIRT5 expression.
MC3138 combined with gemcitabine significantly decreased tumor size, tumor weight, and tumor proliferation cell index in mice, significantly decreased GOT activity in the MC3138-treated tumors.

References

Hu, Tuo, et al. ***Gastroenterology***. 2021 Nov;161(5):1584-1600.

Francesco Fiorentino, et al. ***J Med Chem***. 2022 Jul 8. doi: 10.1021/acs.jmedchem.2c00687.

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