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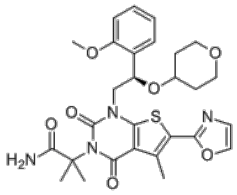
Data Sheet

Global Supplier of Chemical Probes, Inhibitors & Agonists.

Product Name	:	ND-646
Cat. No.	:	PC-20376
CAS No.	:	1434639-57-2
Molecular Formula	:	$C_{28}H_{32}N_4O_7S$
Molecular Weight	:	568.65
Target	:	Acetyl-CoA Carboxylase (ACC)
Solubility	:	10 mM in DMSO



Biological Activity

ND-646 (ND646) is a potent, selective and allosteric inhibitor of **acetyl-CoA carboxylase** ACC1 and ACC2 with IC50 of 3.5 and 4.2 nM for hACC1 and hACC2, respectively.
ND-646 interacts within the dimerization site of the BC domain of ACC, specifically binds to Arg172 in human ACC1 (hACC1R172) and Arg277 in human ACC2 (hACC2R277).
ND-646 treatment led to a complete loss of P-ACC detection in A549 cells without affecting total ACC protein levels.
ND-646 inhibits fatty acid synthesis (FASyn) in vitro, depletes cellular levels of fatty acids and induces apoptosis in NSCLC cells.
ND-646 (25 mg/kg QD) inhibits tumor growth in A549 NSCLC xenograft models.
ND-646 inhibits FASyn in lung tumors of KrasG12D p53−/− and KrasG12D Lkb1−/− mouse models of NSCLC and lowers plasma free fatty acids.
ND-646 suppresses KrasG12D p53−/− and KrasG12D Lkb1−/− autochthonous NSCLC tumor growth.

References

Svensson RU, et al. ***Nat Med.*** 2016 Oct;22(10):1108-1119.

Li EQ, et al. ***Eur J Pharm Sci.*** 2019 Sep 1;137:105010.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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