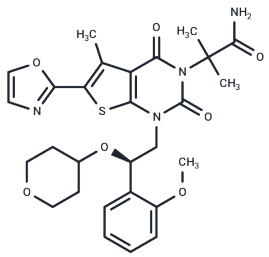
Data Sheet (Cat.No.TQ0243)

TargetMol

ND-646

Chemical Properties



CAS No. : 1434639-57-2

Formula: C28H32N4O7S

Molecular Weight: 568.64

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	ND-646 is an orally bioavailable and allosteric inhibitor of the ACC enzymes ACC1 and ACC2, with IC50 values of 3.5 nM and 4.1 nM for recombinant hACC1 and hACC2, respectively.
Targets(IC50)	Acetyl-CoA Carboxylase
In vivo	ND-646-an allosteric inhibitor of the ACC enzymes ACC1 and ACC2 that prevents ACC subunit dimerization-to suppress fatty acid synthesis in vitro and in vivo.?Chronic ND-646 treatment of xenograft and genetically engineered mouse models of NSCLC inhibited tumor growth.?When administered as a single agent or in combination with the standard-of-care drug carboplatin, ND-646 markedly suppressed lung tumor growth in the Kras;Trp53-/- (also known as KRAS p53) and Kras;Stk11-/- (also known as KRAS Lkb1) mouse models of NSCLC.

Solubility Information

Solubility	DMSO: 150 mg/mL (263.79 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (5.8 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.7586 mL	8.7929 mL	17.5858 mL
5 mM	0.3517 mL	1.7586 mL	3.5172 mL
10 mM	0.1759 mL	0.8793 mL	1.7586 mL
50 mM	0.0352 mL	0.1759 mL	0.3517 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Svensson RU, et al. Inhibition of acetyl-CoA carboxylase suppresses fatty acid synthesis and tumor growth of non-small-cell lung cancer in preclinical models. Nat Med. 2016 Oct;22(10):1108-1119.