

BAY-3827

## Chemical Properties

CAS No. : 2377576-35-5

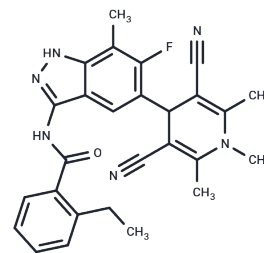
Formula: C<sub>27</sub>H<sub>25</sub>FN<sub>6</sub>O

Molecular Weight: 468.53

Keep away from direct sunlight

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	BAY-3827 is a potent and selective AMPK inhibitor with potential antitumor activity, demonstrating antiproliferative effects in an androgen-dependent prostate cancer model and inhibiting the phosphorylation of acetyl CoA carboxylase 1 (ACC-1).
Targets(IC50)	Acyltransferase,AMPK
In vitro	BAY-3827, in the concentration range of 0-200 $\mu$ M, inhibits AMPK kinase activity with IC <sub>50</sub> values of 1.4 nM at low ATP concentration (10 $\mu$ M) and 15 nM at high ATP concentration (2 mM)[1].In the concentration range of 0-200 $\mu$ M, BAY-3827 inhibits Aurora A, Flt3, c-Met, and Rsk4 with IC <sub>50</sub> values of 1324, 124, 788, and 36 nM, respectively, at 10 $\mu$ M ATP concentration[1].After overnight treatment, BAY-3827 strongly reduces ACC1 Ser79 phosphorylation in LNCaP and VCaP cells, with a lesser extent in IMR-32 and especially in Colo320 cells[1].At concentrations of 0-10 nM over 6 days, BAY-3827 exhibits strong inhibitory effects on LNCaP and VCaP cells[1].At concentrations of 1 and 5 $\mu$ M over 24 and 48 hours, BAY-3827 represses LIPE gene expression, reduces serine/threonine kinase AKT3, and blocks the expression of several genes from the mitochondrial carnitine palmitoyltransferase (CPT) family, which is involved in acyl carnitine formation in VCaP cells[1]. At a concentration of 5 $\mu$ M over 2-4 days, BAY-3827 significantly increases the formation of lipid droplets compared to androgen treatment only[1].

## Solubility Information

Solubility	DMSO: 29.44 mg/mL (62.83 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	2.1343 mL	10.6717 mL	21.3434 mL
5 mM	0.4269 mL	2.1343 mL	4.2687 mL
10 mM	0.2134 mL	1.0672 mL	2.1343 mL
50 mM	0.0427 mL	0.2134 mL	0.4269 mL

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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

Lemos C, et al. The potent AMPK inhibitor BAY-3827 shows strong efficacy in androgen-dependent prostate cancer models. *Cell Oncol (Dordr)*. 2021 Jun;44(3):581-594.

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