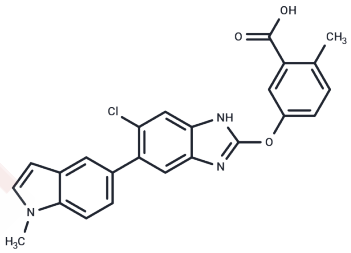
# Data Sheet (Cat.No.TQ0028)

TargetMol

EX229

## Chemical Properties



CAS No. : 1219739-36-2

Formula: C24H18ClN3O3

Molecular Weight: 431.87

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

## Biological Description

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|---|---|
| Description | EX229 (C991) is an allosteric activator of AMPK, with Kds of 0.06 μM, 0.06 μM and 0.51 μM for α1β1γ1, α2β1γ1, and α1β2γ1, respectively. |
| Targets(IC50) | AMPK |
| In vitro | Treatment of hepatocytes with EX229 (991) alone results in a slight increase in the phosphorylation of AMPK and RAPTOR only at 0.3 μM, whereas a robust increase in ACC phosphorylation is readily observed and saturated at a concentration of 0.03 μM EX229. AICAR or C13 alone robustly increases T172 phosphorylation of AMPKα, and when 991 is coincubated, there is a modest additional dose-dependent increase in AMPKα phosphorylation. RAPTOR phosphorylation is modestly increased by AICAR or C13 alone, and it is dose-dependently increased when coincubation is carried out with EX229. EX229 also dose-dependently (0.01 and 0.1 μM) inhibits lipogenesis (34% and 63%, respectively), which is further reduced when it is coincubated with a low dose of AICAR (0.03 mM) or C13 (1 μM). Treatment with EX229 promotes dose-dependent increases in ACC and RAPTOR phosphorylation. Similar to the observations in hepatocytes [2]. |

## Solubility Information

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|---|---|
| Solubility | DMSO: 120 mg/mL (277.86 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 1 mg/mL (2.32 mM),Sonication is recommended.<br>*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 | 2.3155 mL | 11.5776 mL | 23.1551 mL |
| 5 mM | 0.4631 mL | 2.3155 mL | 4.631 mL |
| 10 mM | 0.2316 mL | 1.1578 mL | 2.3155 mL |
| 50 mM | 0.0463 mL | 0.2316 mL | 0.4631 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

Xiao B, et al. Structural basis of AMPK regulation by small molecule activators. Nat Commun. 2013;4:3017.
Li F, Dai P, Shi H, et al.LKB1 inactivation promotes epigenetic remodeling-induced lineage plasticity and antiandrogen resistance in prostate cancer.Cell Research.2025: 1-13.
Bultot L, et al. Benzimidazole derivative small-molecule 991 enhances AMPK activity and glucose uptake induced by AICAR or contraction in skeletal muscle. Am J Physiol Endocrinol Metab. 2016 Oct 1;311(4):E706-E719.