

Product Data Sheet

Product Name: TDI-10229

Cat. No.: GC63213

Chemical Properties

Cas. No. 2810887-45-5

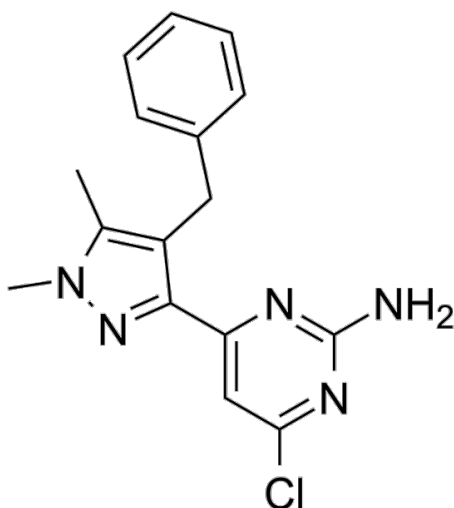
Formula $C_{16}H_{16}ClN_5$ M.Wt 313.78

Solubility DMSO : 125 mg/mL (398.37 mM; Need ultrasonic) Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure



Background

TDI-10229 is a potent and orally bioavailable inhibitor of soluble adenylyl cyclase (sAC, ADCY10).

Caution: Product has not been fully validated for medical applications. For research use only.

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TDI-10229 displays nanomolar inhibition of sAC in both biochemical and cellular assays (IC₅₀ of 195 nM) and exhibits mouse pharmacokinetic properties sufficient to warrant its use as an in vivo tool compound[1][2].

TDI-10229 exhibits good permeability with an IC₅₀ of 92 nM for human 4-4 cells[2].

TDI-10229 (5 mg/kg; p.o.) treatment shows the C_{max}, AUC and MRT were 15.5 µM, 94 µg h/mL and 3.95 hours, respectively.

[1]. Balbach M, et al. Soluble adenylyl cyclase inhibition prevents human sperm functions essential for fertilization [published online ahead of print, 2021 Aug 31]. Mol Hum Reprod. 2021;gaab054.

[2]. Fushimi M, et al. Discovery of TDI-10229: A Potent and Orally Bioavailable Inhibitor of Soluble Adenylyl Cyclase (sAC, ADCY10). ACS Med Chem Lett. 2021;12(8):1283-1287. Published 2021 Jul 14.

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