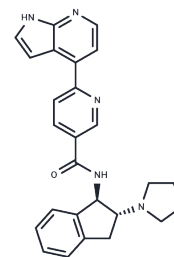


BLU0588

## Chemical Properties

CAS No. : 2810747-78-3  
 Formula: C<sub>26</sub>H<sub>25</sub>N<sub>5</sub>O  
 Molecular Weight: 423.51  
 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	BLU0588 is a small-molecule inhibitor and a PRKACA-targeted inhibitor (IC <sub>50</sub> = 1 nM, K <sub>d</sub> = 4 nM), featuring high selectivity, cell permeability, and oral activity, suitable for experimental research and therapeutic development in fibrolamellar hepatocellular carcinoma (FLC).
Targets(IC <sub>50</sub> )	Others,PKA
In vitro	<p><b>Methods:</b> In FLC PDX cells, BLU0588 (1.5 μM) was used to treat for 1 day or 14 days, and gene expression analysis was performed to detect its effect on FLC-specific gene signatures; additionally, different concentrations of BLU0588 (0-312.5 nM) were used to detect changes in pVASP levels.</p> <p><b>Results:</b> BLU0588 reversed FLC-specific gene signatures, downregulating genes overexpressed in FLC (such as CPS1 and G6PC) and upregulating genes underexpressed in FLC; pVASP levels were reduced in a dose-dependent manner.[1]</p>
In vivo	<p><b>Methods:</b> The inhibitory effect of single oral administration of BLU0588 (30-75 mg/kg) on PRKACA signaling was assessed; the maximum tolerated dose in mice was determined through continuous administration for over 3 weeks; and antitumor efficacy was evaluated in tumor models with oral BLU0588 (30 mg/kg, once daily for 34 days).</p> <p><b>Results:</b> BLU0588 effectively inhibited downstream PRKACA signaling, with phosphorylated VASP levels returning to baseline within 24 hours; the maximum tolerated dose for continuous administration was 30 mg/kg QD; and tumor growth in mice was significantly suppressed. [1]</p>

## Solubility Information

Solubility	DMSO: 85.8 mg/mL (202.59 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	2.3612 mL	11.8061 mL	23.6122 mL
5 mM	0.4722 mL	2.3612 mL	4.7224 mL
10 mM	0.2361 mL	1.1806 mL	2.3612 mL
50 mM	0.0472 mL	0.2361 mL	0.4722 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

Stefanie S. Schalm, et al. Evaluation of Protein Kinase cAMP-Activated Catalytic Subunit Alpha as a Therapeutic Target for Fibrolamellar Carcinoma. *Gastro Hep Advances*. Volume 2, Issue 3, 2023, Pages 307-321.

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Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481