

Product Name: PK-THPP

Catalog No.: 5338

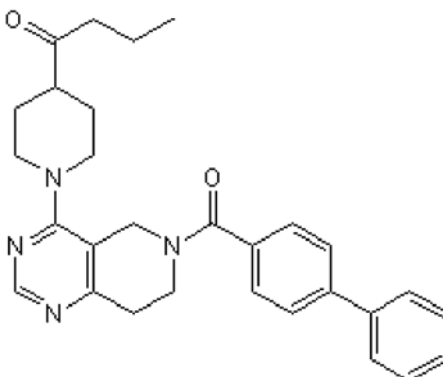
Batch No.: 1

CAS Number: 1332454-07-5

IUPAC Name: 1-[1-[6-[[1,1'-Biphenyl]-4-ylcarbonyl]-5,6,7,8-tetrahydropyrido[4,3-d]pyrimidin-4-yl]-4-piperidiny]-1-butanone

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₉H₃₂N₄O₂
Batch Molecular Weight: 468.59
Physical Appearance: White solid
Solubility: DMSO to 50 mM
 1eq. HCl to 20 mM with gentle warming
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.7 (Dichloromethane:Methanol [9:1])
HPLC: Shows 99.0% purity
¹H NMR: Consistent with structure
 Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	74.33	6.88	11.96
Found	74.28	7.03	11.71

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Potent TASK-3 channel blocker (IC_{50} = 35 and 300 nM for TASK-3 and TASK-1 respectively). Increases breathing rate and induces respiratory alkalosis in rats.

Physical and Chemical Properties:

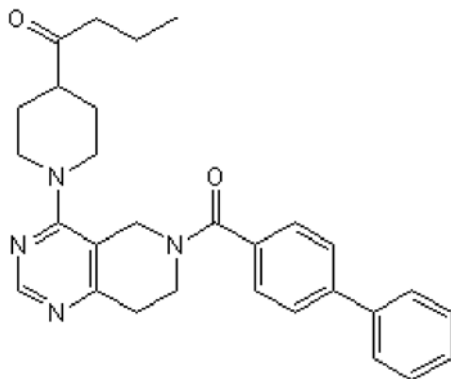
Batch Molecular Formula: $C_{29}H_{32}N_4O_2$

Batch Molecular Weight: 468.59

Physical Appearance: White solid

Minimum Purity: ≥99%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 50 mM

1eq. HCl to 20 mM with gentle warming

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Cotten (2013) TASK-1 (KCNK3) and TASK-3 (KCNK9) tandem pore potassium channel antagonists stimulate breathing in isoflurane-anesthetized rats. *Anesth.Analg.* **116** 810. PMID: 23460565.

Coburn et al (2012) Discovery of a pharmacologically active antagonist of the two-pore-domain potassium channel K2P9.1 (TASK-3). *ChemMedChem* **7** 123. PMID: 21916012.

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