

Certificate of Analysis

www.tocris.com

Product Name: TP 064

Catalog No.: 6008

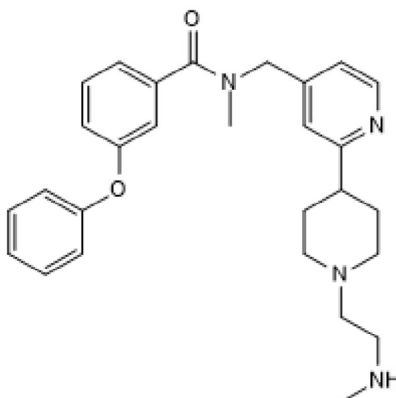
Batch No.: 4

CAS Number: 2080306-20-1

IUPAC Name: *N*-Methyl-*N*-((2-(1-(2-(methylamino)ethyl)piperidin-4-yl)pyridin-4-yl)methyl)-3-phenoxybenzamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₈H₃₄N₄O₂
Batch Molecular Weight: 458.6
Physical Appearance: Beige solid
Solubility: 1eq. HCl to 100 mM
DMSO to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.2% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon Hydrogen Nitrogen		
Theoretical	73.33	7.47	12.22
Found	72.24	7.46	12

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

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Description:

TP 064 is a potent and selective PRMT4 inhibitor; inhibits methylation of H3 (1-25) and MED12 (IC₅₀ values are <10 and 43 nM, respectively). Exhibits >100-fold selectivity over other histone methyltransferases and non-epigenetic targets. Inhibits proliferation of certain multiple myeloma cell lines, arresting cells in G1 phase. TP 064 can be used in vivo. TP 064 inhibits the monocyte/macrophage-driven inflammation in ex vivo. To request the negative control for TP 064, please fill out the TP 064N request form on the SGC website.. Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

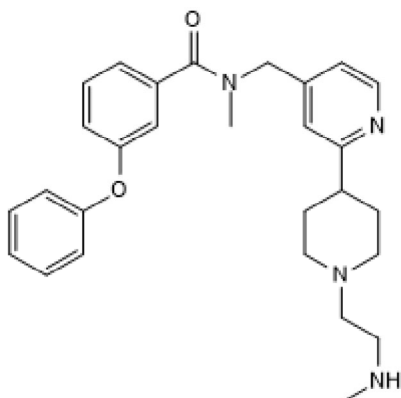
Batch Molecular Formula: C₂₈H₃₄N₄O₂

Batch Molecular Weight: 458.6

Physical Appearance: Beige solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

1eq. HCl to 100 mM

DMSO to 100 mM

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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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.

Licensing Information:

This probe is supplied in conjunction with the Structural Genomics Consortium. For further characterization details, please visit the TP 064 probe summary on the SGC website.

References:

Zhang *et al* (2021) PRMT4 inhibitor TP-064 inhibits the pro-inflammatory macrophage lipopolysaccharide response in vitro and ex vivo and induces peritonitis-associated neutrophilia in vivo. *Biochim.Biophys.Acta Mol.Basis Dis.* **1867** 166212. PMID: 34311083.

Scheer *et al* (2019) A chemical biology toolbox to study protein methyltransferases and epigenetic signaling. *Nat.Comm.* **10** 19. PMID: 30604761.

Nakayama *et al* (2018) TP-064, a potent and selective small molecule inhibitor of PRMT4 for multiple myeloma. *Oncotarget* **9** 18480. PMID: 29719619.

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