

Product Name: TP-040

Catalog No.: 7771

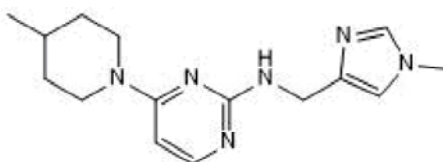
Batch No.: 1

CAS Number: 2757254-99-0

IUPAC Name: *N*-[(1-Methyl-1*H*-imidazol-4-yl)methyl]-4-(4-methyl-1-piperidiny)-2-pyrimidinamine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₅H₂₂N₆
Batch Molecular Weight: 286.38
Physical Appearance: White solid
Solubility: ethanol to 100 mM
DMSO to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.9% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	62.91	7.74	29.35
Found	62.98	7.85	29.56

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

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Description:

TP-040 is a potent and selective O-GlcNAcase (OGA) inhibitor (IC₅₀ = 46 nM). It increases the level of O-GlcNAcylated protein in human neuroblastoma SH-SY5Y cells (EC₅₀ = 450 nM). It is suitable for in vivo studies and exhibits brain permeability.

Physical and Chemical Properties:

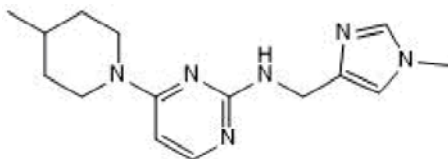
Batch Molecular Formula: C₁₅H₂₂N₆

Batch Molecular Weight: 286.38

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

ethanol 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. 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:

Tawada *et al* (2021) Discovery of a novel and brain-penetrant O-GlcNAcase Inhibitor via virtual screening, structure-based analysis, and rational lead optimization. *J.Med.Chem.* **64** 1103. PMID: 33404239.

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