

Product Name: T4

Catalog No.: 7054

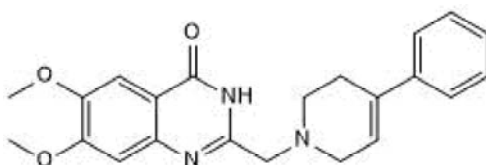
Batch No.: 1

CAS Number: 785708-33-0

IUPAC Name: 6,7-Dimethoxy-2-[[[(4-phenyl-3,6-dihydropyridin-1(2H)-yl)methyl]]quinazolin-4(3H)-one

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₂H₂₃N₃O₃.
Batch Molecular Weight: 377.44
Physical Appearance: White solid
Solubility: DMSO to 2 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.5% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	70.01	6.14	11.13
Found	69.76	6.15	11.21

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

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Description:

T4 is a modulator of alternative polyadenylation (APA) (IC₅₀ values are 2.1 μM and 8.5 μM in U2OS and 293T cells, respectively). T4 promotes distal-to-proximal APA usage in multiple transcripts, using distinctive A-rich motifs through autoregulated PABPN1 signaling. T4 exhibits no inhibitory activity against a panel of 414 kinases. T4 prevents retinal degeneration in the Rho^{P23H} mouse model of retinitis pigmentosa. T4 inhibits rod photoreceptor gene expression via Nr2e3 in a luciferase-based assay (IC₅₀ = 0.07 μM).

Physical and Chemical Properties:

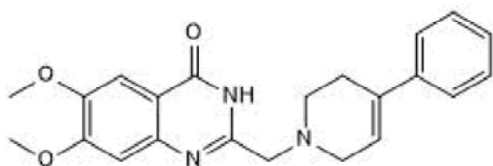
Batch Molecular Formula: C₂₂H₂₃N₃O₃.

Batch Molecular Weight: 377.44

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



References:

Araki et al (2018) Decoding transcriptome dynamics of genome-encoded polyadenylation and autoregulation with small-molecule modulators of alternative polyadenylation. *Cell.Chem.Biol.* **25** 1470. PMID: 30293940.

Nakamura et al (2017) Small molecule photoregulin3 prevents retinal degeneration in the Rho^{P23H} mouse model of retinitis pigmentosa. *ELife* **6**. PMID: 29148976.

Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 2 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.

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