

**Product Name:** MTK 458

**Catalog No.:** 7980

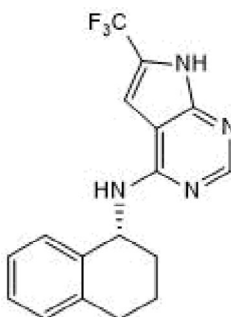
**Batch No.:** 1

CAS Number: 2499962-58-0

IUPAC Name: *N*-[(1*R*)-1,2,3,4-Tetrahydro-1-naphthalenyl]-6-(trifluoromethyl)-7*H*-pyrrolo[2,3-*d*]pyrimidin-4-amine

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>17</sub>H<sub>15</sub>F<sub>3</sub>N<sub>4</sub>.  
**Batch Molecular Weight:** 332.33  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 50 mM  
 ethanol to 20 mM  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 99.8% purity  
**Chiral HPLC:** Shows 99.3% purity  
<sup>1</sup>H NMR: Consistent with structure  
 Mass Spectrum: Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	61.44	4.55	16.86
Found	61.23	4.35	17.15

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

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**Description:**

MTK 458 is a brain penetrant PTEN-induced kinase 1 (PINK1) activator. It binds to and stabilizes the active form of PINK1, increasing its activity and activating mitophagy downstream. It mediates clearance of pathogenic  $\alpha$ -synuclein and normalizes pS65-Ubiquitin (pUb) in in vivo Parkinson's models. MTK458 is orally bioavailable.

**Physical and Chemical Properties:**

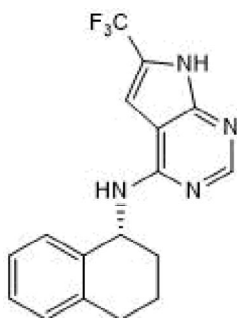
Batch Molecular Formula: C<sub>17</sub>H<sub>15</sub>F<sub>3</sub>N<sub>4</sub>.

Batch Molecular Weight: 332.33

Physical Appearance: White solid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

**Solubility & Usage Info:**

DMSO to 50 mM

ethanol to 20 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:**

Sold with kind permission of Mitokinin

**References:**

Chin *et al* (2023) Pharmacological PINK1 activation ameliorates pathology in Parkinson's disease models. bioRxiv. PMID: 36824886.

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**bio-techne.com**

info@bio-techne.com

techsupport@bio-techne.com

**North America**

Tel: (800) 343 7475

**China**

info.cn@bio-techne.com

Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**

www.tocris.com/distributors

Tel:+1 612 379 2956