

## Certificate of Analysis

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**Product Name:** MK6-83

**Catalog No.:** 5547

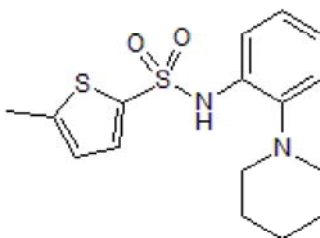
**Batch No.:** 2

CAS Number: 1062271-24-2

IUPAC Name: 5-Methyl-N-[2-(1-piperidinyl)phenyl]-2-thiophenesulfonamide

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>16</sub>H<sub>20</sub>N<sub>2</sub>O<sub>2</sub>S<sub>2</sub>  
**Batch Molecular Weight:** 336.47  
**Physical Appearance:** Beige solid  
**Solubility:** DMSO to 100 mM  
 ethanol to 10 mM  
**Storage:** Store at +4°C  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

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

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	57.12	5.99	8.33
Found	57.19	5.99	8.44

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

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**Description:**

MK6-83 is a TRPML channel activator ( $EC_{50} = 110$  nM). Also activates F408 $\Delta$  and F465L TRPML mutants ( $EC_{50}$  values are 0.1 and 1.23  $\mu$ M respectively). Restores endolysosomal trafficking and zinc homeostasis in lysosomes of mucopolipidosis type IV (MLIV) mutant fibroblasts.

**Physical and Chemical Properties:**

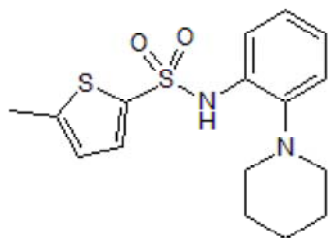
Batch Molecular Formula: C<sub>16</sub>H<sub>20</sub>N<sub>2</sub>O<sub>2</sub>S<sub>2</sub>

Batch Molecular Weight: 336.47

Physical Appearance: Beige solid

**Minimum Purity:**  $\geq 98\%$

**Batch Molecular Structure:**



**References:**

**Chen et al** (2014) A small molecule restores function to TRPML1 mutant isoforms responsible for mucopolipidosis type IV. *Nat. Commun.* **5** 4681. PMID: 25119295.

**Storage:** Store at +4°C

**Solubility & Usage Info:**

DMSO to 100 mM

ethanol to 10 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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