

**Product Name:** SGC 6870

**Catalog No.:** 7182

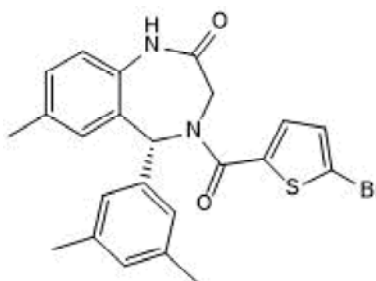
**Batch No.:** 1

CAS Number: 2561471-27-8

IUPAC Name: (R)-4-(5-Bromothiophene-2-carbonyl)-5-(3,5-dimethylphenyl)-7-methyl-1,3,4,5-tetrahydro-2H-benzo[e][1,4]diazepin-2-one

## 1. PHYSICAL AND CHEMICAL PROPERTIES

<b>Batch Molecular Formula:</b>	C <sub>23</sub> H <sub>21</sub> BrN <sub>2</sub> O <sub>2</sub> S
<b>Batch Molecular Weight:</b>	469.4
<b>Physical Appearance:</b>	White solid
<b>Solubility:</b>	DMSO to 100 mM ethanol to 100 mM
<b>Storage:</b>	Store at -20°C
<b>Batch Molecular Structure:</b>	



## 2. ANALYTICAL DATA

<b>HPLC:</b>	Shows 99.8% purity
<b>Chiral HPLC:</b>	Shows 99.9% purity
<b><sup>1</sup>H NMR:</b>	Consistent with structure
<b>Mass Spectrum:</b>	Consistent with structure
<b>Microanalysis:</b>	

	Carbon	Hydrogen	Nitrogen
Theoretical	58.85	4.51	5.97
Found	58.74	4.59	6

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

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**Description:**

SGC 6870 is a potent and selective protein arginine methyltransferase 6 (PRMT6) allosteric inhibitor (IC<sub>50</sub> = 77 nM). Exhibits selectivity over all other PRMTs and 23 methyltransferases. In HEK293T cells overexpressing PRMT6, inhibits asymmetric dimethylation of H3R2 (IC<sub>50</sub> = 0.8 μM). Negative control SGC 6870N (Cat. No. 7184) also available.

**Physical and Chemical Properties:**

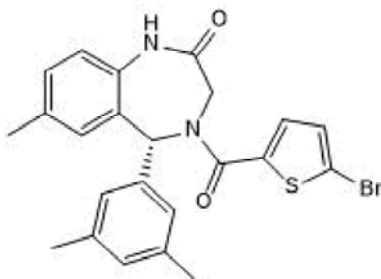
Batch Molecular Formula: C<sub>23</sub>H<sub>21</sub>BrN<sub>2</sub>O<sub>2</sub>S

Batch Molecular Weight: 469.4

Physical Appearance: White solid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

**Solubility & Usage Info:**

DMSO to 100 mM  
ethanol 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.

**Licensing Information:**

This probe is supplied in conjunction with the Structural Genomics Consortium. For further characterization details, please visit the SGC 6870 probe summary on the SGC website.

**References:**

Shen *et al* (2021) A first-in-class, highly selective and cell-active allosteric inhibitor of protein arginine methyltransferase 6 (PRMT6) J.Med.Chem. **64** 3697. PMID: 33591753.

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