

## Certificate of Analysis

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**Product Name:** KL 001

**Catalog No.:** 4685

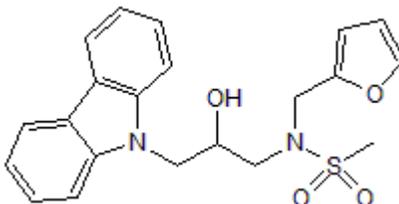
**Batch No.:** 1

CAS Number: 309928-48-1

IUPAC Name: *N*-[3-(9*H*-Carbazol-9-yl)-2-hydroxypropyl]-*N*-(2-furanylmethyl)methanesulfonamide

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>21</sub>H<sub>22</sub>N<sub>2</sub>O<sub>4</sub>S  
**Batch Molecular Weight:** 398.48  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 100 mM  
ethanol to 20 mM  
**Storage:** Store at +4°C  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**Melting Point:** Greater than 106 - 107°C  
**HPLC:** Shows 98.8% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	63.3	5.56	7.03
Found	63.02	5.62	7.21

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

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**Description:**

Cryptochrome protein (CRY) stabilizer; blocks proteasome-mediated degradation of CRY1 and CRY2. Lengthens circadian period in mouse NIH-3T3 fibroblasts without altering casein kinase activity. Represses glucagon-induced hepatic gluconeogenesis through the induction of Pck1 and G6pc expression.

**Physical and Chemical Properties:**

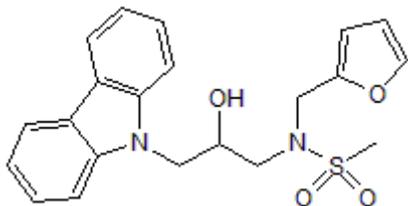
Batch Molecular Formula: C<sub>21</sub>H<sub>22</sub>N<sub>2</sub>O<sub>4</sub>S

Batch Molecular Weight: 398.48

Physical Appearance: White solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**References:**

Hirota *et al* (2012) Identification of small molecule activators of cryptochrome. *Science* **337** 1094. PMID: 22798407.

**Storage:** Store at +4°C

**Solubility & Usage Info:**

DMSO to 100 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. 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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